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OFFICIAL

YEAR BOOK

OF THE

COMMONWEALTH OF AUSTRALIA

No. 39.—1953.

Prepared under Instructions from
The Right Honorable the Treasurer,

BY

S. R. CARVER,
ACTING COMMONWEALTH STATISTICIAN.

Australia. Bureau of Census and Statistics

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PREFACE.

By the Constitution of the Commonwealth of Australia, the Parliament of the Commonwealth is empowered "to make laws for the peace, order, and good government of the Commonwealth, with respect to Census and Statistics." In the exercise of the power so conferred, a "Census and Statistics Act" was passed in 1905, and in the year following the "Commonwealth Bureau of Census and Statistics" was created. The first Official Year Book was published early in 1908. The publication here presented is the thirty-ninth Official Year Book issued under the authority of the Commonwealth Government.

The synopsis on pp. viii to xxvii immediately following shows the general arrangement of the work. The special index (following the general index) provided at the end of the volume, together with certain references given in the various Chapters, will assist in tracing in previous issues special articles and other more or less important miscellaneous matter which, owing to limitations of space, have been omitted or are not printed fully in the present volume. Where, in the general index, more than one reference to a subject is given, the chief reference (or references) has been specially indicated wherever possible.

Every endeavour has been made to meet the demand occasioned by the current economic and financial conditions for new information, or information expressed in new terms, concerning many branches of statistics, while a diary of the principal financial and economic events of the years 1948 to 1951 is inserted after the last chapter.

It is not proposed to refer here to the whole of the new matter or to the new treatment of existing matter incorporated in the present volume, but attention may be drawn to the following :—

Chapter III. General Government.—Qualifications for franchise for, and membership of, State Parliaments (pp. 73–6); Parliamentary Superannuation Funds' Finances (p. 77) (*See also* Chapter XVI.—Private Finance); Successive Holders of Portfolio in Commonwealth Ministries, 9th February, 1923 to 31st July, 1951 (pp. 79–88)—continuing a series last appearing in issue No. 21.

Chapter V. Transport and Communication.—Traffic Accidents—additional information about Persons Killed and Injured and the type of Vehicle, Road User, etc. involved (pp. 181–2).

Chapter VI. Education.—Universities—New Students Enrolled (p. 221); Degrees Conferred and Diplomas and Certificates Granted (p. 225); New South Wales University of Technology (pp. 228–30); Commonwealth Scholarship Scheme (p. 235); Libraries—extensive revision (pp. 241–51).

Chapter VIII. Public Health and Related Institutions.—Animal and Plant Quarantine (pp. 287–8); Cremations (p. 300).

Chapter IX. Welfare Services.—Commonwealth Expenditure on Social and Health Services in each State (p. 307.)

Chapter X. The Territories of Australia.—Extensive revision, particularly to Papua and New Guinea sections.

Chapter XI. Labour, Wages and Prices.—Wholesale Price Indexes compiled by Bureau (pp. 394–5 and 397); Basic Wage Inquiry, 1949–50—Court judgments and declarations (p. 415).

Chapter XII. Trade.—Australian Index of Export Prices—description revised (pp. 500–4); The Australian Balance of Payments—Statistics for years 1948–49 to 1950–51 (pp. 508–13).

Chapter XIII. Population.—"Assisted" and "Unassisted" Migration—new table showing arrivals and departures 1901–1950 (p. 559); Age Distribution, Conjugal Condition and Occupations of Permanent Arrivals and Departures (p. 564).

Chapter XIV. Vital Statistics.—Deaths—1950 particulars according to Classification approved by International Conference for the Sixth Revision of the International List of Diseases and Causes of Death, 1948 (pp. 617, etc.).

Chapter XVI. Private Finance.—State Lotteries and Betting (pp. 753–5); Government, Semi-Governmental and Parliamentary Pension and Superannuation Schemes (pp. 755–7).

Chapter XVII. Public Finance.—Commonwealth Expenditure on Subsidies and Bounties (pp. 786–7).

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Chapter XVIII. Mineral Industry.—Sections dealing with Silver, Lead and Zinc redrafted. This Chapter in general had extensive revision.

Chapter XX. Agricultural Production.—Bulk Handling of Wheat in Australia (pp. 954–8); Tractors on Rural Holdings (p. 1017).

Chapter XXIV. Manufacturing Industry.—Growth of the Manufacturing Industry in Australia, etc., Definitions in Factory Statistics, Classification of Factories (pp. 1084–8); Principal Factory Products—quantities manufactured in Australia, 1947–48 to 1949–50 (pp. 1119–22).

Chapter XXV. Electric Power Generation and Distribution.—Special article contributed by Division of Industrial Development, Commonwealth Ministry of National Development—dealing with origins, development, present situation and new projects of the various electrical systems throughout Australia.

Chapter XXIX. Miscellaneous.—Australian Broadcasting Control Board (pp. 1283–4); Australian Road Safety Council (pp. 1287–8); Retail Trade—number of establishments and value of retail sales (pp. 1305–9).

Chapter XXX. Statistical Organization and Sources of Information.—Statistical Organization in Australia (pp. 1315–7); The Third Conference of British Commonwealth Statisticians, Canberra, 1951 (p. 1320).

Appendix.—Commonwealth Conciliation and Arbitration Tribunal (pp. 1357–8).

Statistical Summary.—Taken back to 1861—ten-yearly series.

Throughout this issue graphical presentation has been improved by the addition of new graphs and the redrawing of the other graphs.

The material in the Year Book has been carefully checked throughout, but I shall be grateful to those who will be kind enough to point out defects or make suggestions.

Printing difficulties are still being experienced and have delayed the publication of this volume. In a publication of more than 1,400 pages, a considerable time must necessarily elapse between the handling, by both author and printer, of the earlier and later parts of the work; this is so in normal circumstances, and particularly so when, as at present, great demands are being made on the printing facilities available. The result, in a statistical publication, is an unevenness in the periods to which the statistics relate. To overcome this difficulty at least partially, much more use is now made of the Appendix to the Year Book. Wherever available, and as far as space permits, the latest particulars of many statistical series appearing in preceding Chapters are inserted in the Appendix. The insertions are restricted to figures mainly, as the inclusion of current textual matter is not generally practicable.

The Appendix to this issue contains information relating to the years 1950, 1950–51, 1951 or 1951–52, that is, one, and in some instances two, years in advance of that contained in the body of the book.

It is not inappropriate to mention here that for the most recent statistics the reader should refer to other publications issued by this Bureau, notably the *Monthly Review of Business Statistics* and the *Quarterly Summary of Australian Statistics*. There are also numerous mimeographed statements issued from time to time on a wide range of subjects. Particulars of these may be had on application. (*See also* pp. 1317–9 of this volume.)

Commencing with issue No. 38 a change in the title of the Year Book was made, the year now shown being the year of issue.

My thanks are tendered to the State Statisticians, who have collected and compiled the data on which a great part of the information given in the Official Year Book is based. Thanks are also tendered to the responsible officers of the various Commonwealth and State Departments, and to others who have kindly, and often at considerable trouble, supplied information.

An expression of keen appreciation is due in respect of the valuable work performed by Mr. S. H. Begley, Editor of Publications, Mr. J. M. Jones, B.A., and Mr. E. H. Harry, B.A., B.Com., Assistant Editors, and the other officers of the Publications Division, and of the services rendered by the officers in charge of the several branches of the Commonwealth Bureau of Census and Statistics upon whom has devolved the duty of revising the Chapters relative to their respective branches.

S. R. CARVER,
Acting Commonwealth Statistician.

COMMONWEALTH BUREAU OF CENSUS AND STATISTICS,
Canberra, A.C.T., August, 1952.

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STATISTICAL SUMMARY.

STATISTICAL SUMMARY, AUSTRALIA.

Item.		1861.	1871.	1881.	1891.	1901.	1911.	1921.	1931.	1941.	1950.
Population and Vital—											
Population(a) ..	'000 Males	669	929	1,247	1,737	2,005	2,382	2,799	3,333	3,599	4,197
	'000 Females	499	772	1,060	1,504	1,820	2,192	2,712	3,220	3,545	4,110
	'000 Persons	1,168	1,701	2,307	3,241	3,825	4,574	5,511	6,553	7,144	8,316
Marriages ..	'000	10	12	17	24	28	39	47	39	75	76
	Rate	8.6	6.9	7.6	7.5	7.3	8.8	8.6	6.0	10.6	9.2
Births ..	'000	49	64	80	110	103	122	136	119	135	191
	Rate	42.3	38.0	35.3	34.5	27.2	27.2	25.0	18.2	18.9	23.3
Deaths ..	'000	20	22	33	47	46	48	54	57	71	78
	Rate	17.3	13.2	14.7	14.8	12.2	10.7	9.9	8.7	10.0	9.6
Agriculture—		(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)
Wheat ..	Area mill. acs.	0.7	1.3	3.0	3.3	5.1	7.4	9.7	14.7	12.0	11.7
	Yld. mill. bus.	10	12	21	26	39	72	129	191	167	184
	Av. Yld. bus.	14.3	9.3	7.2	7.7	7.5	9.6	13.3	12.9	13.9	15.8
Oats ..	Area '000 acs.	130	225	195	246	461	617	733	1,085	1,460	1,757
	Yld. mill. bus.	3.1	4.3	4.8	5.7	9.8	9.6	12.1	15.2	22.3	25.1
	Av. Yld. bus.	23.8	18.9	24.6	23.3	21.2	15.5	16.6	14.0	15.3	14.3
Barley ..	Area '000 acs.	28	48	76	68	75	116	299	342	784	1,079
	Yld. mill. bus.	0.5	0.7	1.4	1.2	1.5	2.1	6.1	6.3	18.0	22.9
	Av. Yld. bus.	18.1	15.1	17.8	17.3	20.4	17.7	20.4	18.4	23.0	21.2
Maize ..	Area '000 acs.	62	142	166	284	295	340	305	269	301	169
	Yld. mill. bus.	1.8	4.6	5.7	9.3	7.0	8.9	7.8	7.1	7.4	4.7
	Av. Yld. bus.	29.2	32.2	34.5	32.6	23.9	26.3	25.7	20.2	24.7	27.9
Hay ..	Area '000 acs.	222	303	768	942	1,688	2,518	2,995	2,635	2,758	1,377
	Yld. '000 tons	298	376	767	1,067	2,025	2,868	3,902	3,167	3,575	2,063
	Av. Yld. tons	1.34	1.24	1.00	1.13	1.20	1.14	1.30	1.20	1.30	1.50
Potatoes ..	Area '000 acs.	(c) 47	(c) 68	(c) 76	113	110	130	149	145	99	127
	Yld. '000 tons	(c)148	(c)213	(c)243	380	323	301	388	397	333	412
	Av. Yld. tons	c3.12	c3.13	c3.19	3.37	2.94	2.31	2.60	2.74	3.35	3.24
Sugar-cane ..	Area(d) '000 acs.	..	5	20	45	87	101	128	242	255	272
	Yld. '000 tons	..	(e)	350	738	1,368	1,682	2,437	4,213	5,154	7,052
	Av. Yld. tons	..	(e)	17.7	16.2	15.7	16.7	19.0	17.4	20.3	25.9
Vineyards ..	Area '000 acs.	7	16	15	49	64	61	92	113	130	137
	Wine mill. gal.	0.4	2.0	1.4	3.4	5.3	5.0	8.5	14.2	16.0	27.2
Total net value of all Agricultural Production	£m.	(e)	(f) 9	(f) 16	(f) 17	(f) 24	(f) 39	(f) 82	50	63	196
Pastoral, Dairying, Etc.—											
Live-stock ..	Horses mill.	0.43	0.70	1.09	1.59	1.62	2.28	2.44	1.78	1.61	1.00
	Cattle ,,	3.8	4.3	8.0	11.1	8.5	11.8	14.4	12.3	13.6	15.2
	Sheep ,,	21	40	65	106	72	97	86	111	125	116
	Pigs ,,	0.32	0.59	0.70	0.85	0.93	1.11	0.96	1.17	1.48	1.13
Wool production(g) ..	mill. lb.	(h) 67	h 208	h 320	h 634	h 539	h 798	723	1,007	1,167	1,093
Butter ,,	'000 tons	(e)	(e)	(e)	(h) 19	(h) 46	(h) 95	(h) 119	175	168	164
Cheese ,, ..	,,	(e)	(e)	(e)	h 4.5	h 5.3	h 7.1	h 14.6	14.0	30.1	44.3
Meat Production(i)—											
Beef and Veal ..	,,	(e)	(e)	(e)	(e)	(e)	(e)	339	350	534	652
Mutton and Lamb ..	,,							218	307	372	274
Pork	,,							11.1	22.7	58.1	35.3
Bacon and Ham ..	,,	(e)	(e)	(e)	h 7.5	h15.2	h23.8	26.2	31.8	42.5	36.8
Total Meat	,,	(e)	(e)	(e)	(e)	(e)	(e)	608	727	1,027	1,011
Total net value of—											
Pastoral production ..	£m.	(e)	(f) 21	(f) 30	(f) 39	(f) 37	(f) 73	(f) 119	43	85	709
Dairying ,, ..	,,								23	34	89
		1861.	1871.	1881.	1891.	1901.	1911.	1921.	1931.	1941.	1950.
Mineral Production—											
Gold	'000 fine oz.	2,343	1,864	1,223	1,243	3,300	2,484	758	595	1,497	868
	£m.	10.0	7.9	5.2	5.3	14.0	10.6	4.0	3.6	16.0	13.5
Silver and Lead	,,	..	..	..	3.7	2.2	3.0	1.5	1.4	6.3	j20.3
Copper	,,	0.5	0.8	0.7	0.4	2.2	2.6	0.8	0.6	1.5	(j)2.1
Tin	,,	..	..	1.1	0.6	0.4	1.2	0.4	0.2	1.0	(j)1.1
Zinc	,,	..	..	..	..	..	1.4	0.3	0.5	1.6	(j)7.1
Coal (Black and Brown) ..	mill. tons	0.4	0.9	1.8	4.4	6.9	10.6	12.9	10.6	18.8	23.9
	£m.	0.2	0.3	0.6	1.9	2.6	3.9	11.0	6.2	11.1	29.3
Total value of all Mineral Production	£m.	10.6	9.2	7.8	12.1	21.8	23.3	20.0	13.2	41.7	89.5
Forestry Production—											
Quantity of local timber sawn or hewn ..	mill. sup. ft.	(e)	(e)	(e)	(e)	452	605	(b) 590	b 237	b 914	b1,261

(a) At 31st December. (b) Year ended June following. (c) Partly estimated. (d) Productive cane. (e) Not available. (f) Gross value. (g) In terms of greasy. (h) Years ended December. (i) Bone-in weight in terms of fresh meat; cured weight, bacon and ham. (j) 1949.

STATISTICAL SUMMARY, AUSTRALIA—*continued.*

Item.		1861.	1871.	1881.	1891.	1901.	1911.	1921.	1931.	1941.	1950.
Factories—								(a)	(a)	(a)	(a)
No. of factories	'000	(b)	(b)	(b)	(b)	(b)	14.5	18.0	21.7	27.0	43.1
Persons employed ..	,,						312	379	337	725	969
Wages paid	£m.						28	68	56	180	492
Value of production ..	,,						51	122	111	316	844
Total value of output ..	,,						133	320	282	773	2,151
Shipping—											
Oversea Vessels, Entrances and Clearances	No.	2,466	2,748	3,284	3,778	4,028	4,174	3,111	3,057	2,544	3,903
	mill. tons	1.1	1.3	2.5	4.7	6.5	10.0	9.1	11.4	10.8	17.3
Commerce—											
Imports, oversea	£m. f.o.b.	18	17	26	34	38	61	94	52	174	744
Exports, oversea	,,	17	22	28	36	50	79	128	108	169	982
Total oversea trade	,,	35	39	54	70	88	140	222	160	343	1,726
Net Customs and Excise duties	£m.	(c)	(c)	5	7	9	14	28	29	56	165
Principal Oversea Exports(*d*)—											
Wool ..	mill. lb.(*e*)	60	177	329	641	529	734	946	903	938	1,184
	£m. f.o.b.	5	9	13	20	15	26	48	32	58	633
Wheat ..	mill. bus.	..	1	5	10	20	55	100	127	22	87
	£m. f.o.b.	..	0.2	1.2	1.9	2.8	9.6	28.6	19.2	4.6	74.2
Flour	'000 short tons	8	13	50	33	97	176	360	611	414	883
	£m. f.o.b.	0.1	0.2	0.5	0.3	0.6	1.4	5.5	3.8	4.2	32.9
Butter ..	mill. lb.	1	2	1	4	35	102	127	202	130	120
	£m. f.o.b.	..	..	..	0.2	1.4	4.6	8.0	10.3	8.1	18.5
Hides and Skins	£m. f.o.b.	0.2	0.1	0.3	0.9	1.3	3.2	3.1	2.3	6.0	27.2
Tallow (inedible) ..	,,	0.15	0.91	0.64	0.57	0.68	1.94	1.44	0.83	0.84	1.32
Meats	,,	..	0.6	0.4	0.5	2.6	4.3	5.5	6.4	14.1	30.4
Timber (undressed) ..	,,	0.03	0.04	0.12	0.04	0.64	1.02	1.16	0.50	0.32	1.11
Gold	,,	10.0	7.2	6.4	5.7	14.3	12.0	3.5	11.9	9.2	..
Silver and Lead ..	,,	..	..	0.1	1.9	2.3	3.2	2.7	2.9	7.4	25.0
Copper	,,	0.38	0.60	0.68	0.42	1.62	2.35	0.71	0.47	0.02	0.10
Coal	,,	0.06	0.13	0.36	0.65	0.99	0.90	1.10	0.34	0.26	0.24
Government Railways—											
Length of line open	'000 miles	0.2	1.0	3.8	9.5	12.6	16.1	23.5	27.0	27.2	27.0
Gross Revenue	£m.	..	1	4	9	11	18	38	38	66	106
Working Expenses ..	,,	..	1	2	6	7	11	30	28	51	113
Proportion of working expenses to gross revenue ..	%	73	55	55	65	65	61	78	75	77	107
Postal—											
Letters and postcards dealt with	mill.	13	24	68	157	221	453	562	*f* 731	922	1,228
Newspapers dealt with ..	,,	10	13	38	85	103	142	140	140	*f* 178	*f* 257
Cheque-paying Banks(*g*)—											
Note circulation ..	£m.	3.0	2.5	4.0	4.4	3.4	3.7	*h* 0.2	0.2	0.2	0.2
Coin and bullion held ..	,,	4.7	6.2	9.1	17.5	19.8	33.5	21.6	2.0	1.5	3.3
Advances	,,	18	26	58	125	94	109	183	261	270	502
Deposits	,,	14	22	54	98	91	143	*i* 289	319	387	1,277
Australian Note Issue(*j*) ..	,,	..	..	..	..	..	8	54	51	103	275
Savings Banks(*k*)—											
Total deposits	,,	1	3	7	15	31	59	154	198	274	837
State Schools—								(*l*)	(*l*)	(*l*)	(*l*)
Schools	'000	1.9	2.5	4.5	6.2	7.0	8.1	9.4	10.1	9.5	7.8
Teachers	,,	2.5	4.6	9.0	12.6	14.5	17.0	26.1	33.8	32.1	36.1
Enrolment	,,	106	237	432	561	638	639	819	937	887	1,027
Average Attendance ..	,,	73	138	255	351	450	464	666	817	732	844

(*a*) Year ended June following. (*b*) Owing to variation in classification, effective comparison is impossible. (*c*) Not available. (*d*) Australian produce except gold, which includes re-exports. Australian currency values. (*e*) In terms of greasy. (*f*) Includes packets. (*g*) Figures for first four years are averages for December quarter, the remainder for the June quarter. All cheque-paying banks to 1931-32, Nine Trading Banks thereafter. (*h*) Decrease due to prohibition of re-issue. (*i*) Includes Commonwealth Savings Bank deposits. (*j*) End of June. (*k*) First four years at 31st December, thereafter at 30th June. (*l*) Year ended 31st December.

CHRONOLOGICAL TABLE.

CHRONOLOGICAL TABLE OF CHIEF EVENTS SINCE THE ESTABLISHMENT OF SETTLEMENT IN AUSTRALIA.

NOTES.—For each earlier year this table contains rarely more than two or three items; for recent years, however, in order to provide a wide cover of events, etc., it includes a much greater number. Both the nature of the Table and considerations of space render necessary a continual reduction in these items, and for more information the reader should therefore consult earlier issues.

The Government was centralized in Sydney, New South Wales, up to 1825, when Tasmania (Van Diemen's Land) was made a separate colony. In the Table the names now borne by the States serve to indicate the localities.

Year.	
1788	N.S.W.—Arrival of "First Fleet", under Captain Arthur Phillip, at Botany Bay. Land in vicinity being found unsuitable for settlement, the expedition moved to Sydney Cove, and formal possession of the colony was taken on 26th January. Formal proclamation of colony and establishment of regular government on 7th February. Branch Settlement established at Norfolk Island. French navigator Lapérouse visited Botany Bay. First cultivation of wheat and barley. First grape vines planted.
1789	N.S.W.—First wheat harvest at Parramatta, near Sydney. Discovery of Hawkesbury River.
1790	N.S.W.—Scarcity of provisions. "Second Fleet" reached Port Jackson. Landing of the New South Wales Corps.
1791	N.S.W.—Arrival of "Third Fleet". Territorial seal brought by Governor King.
1792	N.S.W.—Visit of *Philadelphia*, first foreign trading vessel.
1793	N.S.W.—First free immigrants arrived in the *Bellona*. First Australian church opened at Sydney. Tas.—D'Entrecasteaux discovered the Derwent River.
1794	N.S.W.—Establishment of settlement at Hawkesbury River.
1795	N.S.W.—Erection of the first printing press at Sydney. Descendants of strayed cattle discovered at Cowpastures, Nepean River.
1796	N.S.W.—First Australian theatre opened at Sydney. Coal discovered by fishermen at Newcastle.
1797	N.S.W.—Introduction of merino sheep from Cape of Good Hope.
1798	Tas.—Insularity of Tasmania proved by voyage of Bass and Flinders.
1800	N.S.W.—Hunter River coal-mines worked. First Customs House in Australia established at Sydney. Flinders' charts published.
1801	N.S.W.—First colonial manufacture of blankets and linen.
1802	Vic.—Discovery of Port Phillip by Lieut. Murray. Q'land.—Discovery of Port Curtis and Port Bowen by Flinders. S.A.—Discovery of Spencer's and St. Vincent Gulfs by Flinders.
1803	N.S.W.—First Australian wool taken to England by Capt. Macarthur. Issue of "The Sydney Gazette", first Australian newspaper. Vic.—Attempted settlement at Port Phillip by Collins. Discovery of Yarra by Grimes. Tas.—First settlement formed at Risdon by Lieut. Bowen.
1804	Vic.—Abandonment of settlement at Port Phillip. Tas.—Foundation of settlement at Hobart by Collins.
1805	N.S.W.—First extensive sheep farm established at Camden by Capt. Macarthur.
1806	N.S.W.—"The great flood" on the Hawkesbury. Shortage of provisions. Tas.—Settlement at Launceston.
1807	N.S.W.—First shipment of merchantable wool (245 lb.) to England.
1808	N.S.W.—Deposition of Governor Bligh.
1809	N.S.W.—Free school established.
1810	N.S.W.—Post Office officially established at Sydney.
1813	N.S.W.—Passage across Blue Mountains discovered by Wentworth, Lawson and Blaxland. Macquarie River discovered by Evans.
1814	N.S.W.—Flinders suggested the name "Australia", instead of "New Holland". Creation of Civil Courts.
1815	N.S.W.—First steam engine in Australia erected at Sydney. Lachlan River discovered by Evans. Tas.—Arrival of first immigrant ship with free settlers. First export of wheat to Sydney.
1816	N.S.W.—Sydney Hospital opened.

Year.

1817 N.S.W.—Oxley's first exploration inland. Discovery of Lakes George and Bathurst and the Goulburn Plains by Meehan and Hume. First bank in Australia—Bank of New South Wales—opened at Sydney.

1818 N.S.W.—Liverpool Plains, and the Peel, Hastings and Manning Rivers discovered by Oxley, and Port Essington (N.T.) by Captain King.

1819 N.S.W.—First Savings Bank in Australia opened at Sydney.

1820 Tas.—First importation of pure merino sheep from Camden Park (N.S.W.) flocks.

1821 Tas.—Establishment of penal settlement at Macquarie Harbour.

1822 N.S.W.—Formation of Agricultural Society of New South Wales.

1823 N.S.W.—New South Wales Judicature Act passed. Discovery of gold at Fish River by Assistant-Surveyor McBrien. Qld.—Brisbane River discovered by Oxley.

1824 N.S.W.—Constituted a Crown Colony. Executive Council formed. Establishment of Supreme Court at Sydney, and introduction of trial by jury. First Australian Enactment (Currency Bill) passed by the Legislative Council. Proclamation of freedom of the press. First manufacture of sugar. Vic.—Hume and Hovell, journeying overland from Sydney, arrived at Corio Bay. Qld.—Penal settlement founded at Moreton Bay (Brisbane). Fort Dundas Settlement formed at Melville Island, N. Terr.

1825 Tas.—Van Diemen's Land (Tasmania) proclaimed a separate colony. Qld.—Major Lockyer explored Brisbane River to its source and discovered coal.

1826 N.S.W.—Settlement in Illawarra District. Vic.—Settlement at Corinella, Western Port, formed by Captain Wright.

1827 Qld.—Darling Downs and the Condamine River discovered by Allan Cunningham. W.A.—Military settlement founded at King George's Sound by Major Lockyer. First official claim of British Sovereignty over all Australia.

1828 N.S.W.—Second constitution. First Census. Sturt's expedition down Darling River. Gas first used at Sydney. Richmond and Clarence Rivers discovered by Captain Rous. Vic.—Abandonment of settlement at Western Port. Qld.—Cunningham discovered a route from Brisbane to the Darling Downs, and explored Brisbane River.

1829 N.S.W.—Sturt's expedition down Murrumbidgee River. W.A.—Foundation of settlement at Swan River. Foundation of Perth.

1830 N.S.W.—Sturt, voyaging down Murrumbidgee and Murray Rivers, arrived at Lake Alexandrina. Tas.—Black line organized to force aborigines into Tasman's Peninsula, but failed. Small remnant subsequently (1830 to 1835) persuaded to settle on Flinders Island.

1831 N.S.W.—Crown lands first disposed of at auction. Mitchell's explorations north of Liverpool Plains. SS. *Surprise*, first steamship built in Australia, launched at Sydney. First coal shipped from Australian Agricultural Company's workings at Newcastle, N.S.W. First assisted immigration to N.S.W. S.A.—Wakefield's first colonization committee. W.A.—Appointment of Executive and Legislative Councils.

1832 N.S.W.—State Savings Bank established.

1833 N.S.W.—First School of Arts established at Sydney.

1834 N.S.W.—First settlement at Twofold Bay. Vic.—Settlement formed at Portland Bay by Henty Brothers. S.A.—Formation of the South Australian Association. W.A.—Severe reprisals against Murray River natives at Pinjarrab for continued attacks on settlers.

1835 Vic.—John Batman arrived at Port Phillip; foundation of Melbourne.

1836 N.S.W.—Mitchell's overland journey from Sydney to Cape Northumberland. Vic.—Proclamation of Port Phillip district as open for settlement. S.A.—Settlement founded at Adelaide under Governor Hindmarsh.

1837 N.S.W.—Appointment in London of Select Committee on Transportation. Vic.—First overlanders from Sydney arrived at Port Phillip.

1838 N.S.W.—Discontinuance of assignment of convicts. Qld.—Settlement of German missionaries at Brisbane—first free colonists. S.A.—"Overlanding" of cattle from Sydney to Adelaide along the Murray route by Hawdon and Bonney. Settlement at Port Essington, Northern Territory, formed by Captain Bremer.

Year.

1839 N.S.W.—Gold found at Vale of Clwydd by Count Strzlecki. S.A.—Lake Torrens discovered by Eyre. Port Darwin discovered by Captain Stokes. W.A.—Murchison River discovered by Captain Grey.

1840 N.S.W.—Abolition of transportation to New South Wales. Land regulations—proceeds of sales to be applied to payments for public works and expenditure on immigration. Vic.—Determination of northern boundary. Qld.—Penal settlement broken up and Moreton Bay district thrown open. S.A.—Eyre began his overland journey from Adelaide to King George's Sound.

1841 N.S.W.—Gold found near Hartley. W.A.—Completion of Eyre's overland journey from Adelaide to King George's Sound. New Zealand proclaimed a separate colony.

1842 N.S.W.—Incorporation of Sydney. Vic.—Incorporation of Melbourne. S.A.—Discovery of copper at Kapunda.

1843 N.S.W.—First Representative Constitution (under Act of 1842). Qld.—Moreton Bay granted legislative representation as a distinct electoral division.

1844 Qld.—Leichhardt's expedition to Port Essington (N.T.). S.A.—Sturt's last expedition inland.

1845 N.S.W.—Mitchell's explorations on the Barcoo. Qld.—Explorations by Mitchell and Kennedy. S.A.—Discovery of the Burra copper deposits. Sturt discovered Cooper's Creek.

1846 N.S.W.—Initiation of meat-preserving. Qld.—Foundation of settlement at Port Curtis. S.A.—Proclamation of North Australia.

1847 N.S.W.—Iron-smelting commenced near Berrima. Overland mail established between Sydney and Adelaide. Qld.—Explorations by Leichhardt, Burnett and Kennedy.

1848 N.S.W.—National and Denominational School Boards established. Qld.—Leichhardt's last journey. Kennedy speared by the blacks at York Peninsula. Chinese brought in as shepherds.

1849 N.S.W.—Indignation of colonists at arrival of convict ship *Hashemy*. Exodus of population to gold-fields of California. Vic.—*Randolph* prevented from landing convicts. Qld.—Assignation of *Hashemy* convicts to squatters on Darling Downs. W.A.—Commencement of transportation to Western Australia.

1850 N.S.W.—Final abolition of transportation. First sod of first Australian railway turned at Sydney. Sydney University founded. Vic.—Gold discovered at Clunes. Representative government granted. S.A.—Representative government granted. W.A.—Pearl oysters found by Lieut. Helpman at Saturday Island Shoal. Tas.—Representative government granted.

1851 N.S.W.—Payable gold discovered by Hargraves at Lewis Ponds and Summerhill Creek. Vic.—Port Phillip created an independent colony under the name of Victoria. Discovery of gold in various localities. W.A.—Proclamation of Legislative Council Act.

1852 N.S.W.—Arrival of the *Chusan*, first P. and O. mail steamer from England. S.A.—First steamer ascended the Murray River to the junction with the Darling. Tas.—Meeting of first elective Council protested against transportation. Payable gold discovered at The Nook, near Fingal, and at Nine Mile Springs.

1853 Tas.—Abolition of transportation. Vic.—Melbourne University founded.

1854 Vic.—Opening of first Victorian railway—Flinders-street to Port Melbourne. Riots on Ballarat gold-fields. Storming of the Eureka Stockade, 3rd Dec. Telegraph first used.

1855 N.S.W.—Opening of railway—Sydney to Parramatta. Mint opened.

1856 N.S.W.—Pitcairn Islanders placed on Norfolk Island. W.A.—A. C. Gregory's expedition in search of Leichhardt.

Responsible Governments in N.S.W., Vic., S.A. and Tas. (Act of 1855).

1857 N.S.W.—Select Committee on Federation. Vic.—Manhood suffrage and vote by ballot. S.A.—Passage of Torrens' Real Property Act.

1858 N.S.W.—Establishment of manhood suffrage and vote by ballot. Telegraphic communication between Sydney, Melbourne and Adelaide. Qld.—Canoona gold rush.

Population of Australia reached 1,000,000.

Year.

1859 Qld.—Proclamation of Queensland as separate colony. Tas.—First submarine cable, via Circular Head and King Island to Cape Otway.

1860 Vic.—Burke and Wills left Melbourne and crossed to Gulf of Carpentaria. S.A.—Copper discoveries at Wallaroo and Moonta. McDouall Stuart reached centre of continent and named "Central Mount Stuart".

1861 N.S.W.—Anti-Chinese riots at Lambing Flat and Burrangong gold-fields. Opening of first tramway in Sydney. Regulation of Chinese immigration. Vic.—Burke and Wills perished at Cooper's Creek, near Innamincka, S.A.

1862 N.S.W.—Abolition of State aid to religion. Real Property (Torrens) Act passed. S.A.—Stuart crossed the Continent from south to north. W.A.—First export of pearl-shell.

1863 Vic.—Intercolonial Conference at Melbourne. S.A.—Northern Territory taken over. W.A.—Initiation of settlement in the north-west district. Henry Maxwell Lefroy discovered and traversed area now comprised in the Coolgardie-Kalgoorlie gold-field.

1864 Qld.—First sugar made from Queensland cane.

1865 N.S.W.—Destruction by fire of St. Mary's Cathedral, Sydney.

1866 N.S.W.—Passage of Public Schools Act of (Sir) Henry Parkes. S.A.—Introduction of camels for exploration, etc.

1867 Vic.—Imposition of protective tariff. Qld.—Discovery of gold at Gympie.

1868 W.A.—Arrival of the *Hougomont*, last convict ship.

1869 Vic.—Record gold nugget "Welcome Stranger" 2,284 oz. found near Dunolly. W.A.—First telegraph line opened from Perth to Fremantle.

1870 N.S.W.—Intercolonial Exhibition opened at Sydney. Imperial troops withdrawn. Vic.—Intercolonial Congress at Melbourne. S.A.—Commencement of transcontinental telegraph.

1871 N.S.W.—Permanent military force raised. W.A.—Forrest's explorations. Tas.—Discovery of tin at Mount Bischoff.

1872 Vic.—Mint opened. S.A.—Cable from Java to Port Darwin. Completion of transcontinental telegraph line.

1873 N.S.W.—Intercolonial Conference at Sydney. First volunteer encampment. Inauguration of mail service with San Francisco.

1874 N.S.W.—Triennial Parliaments Act passed. Intercolonial Conference. S.A.—University of Adelaide founded. W.A.—John and Alexander Forrest arrived at Overland Telegraph from Murchison.

1875 Qld.—Transfer of Port Albany Settlement to Thursday Island.

1876 N.S.W.—Completion of cable—Sydney to Wellington. W.A.—Giles crossed colony from east to west. Tas.—Death of Truganini, last representative of Tasmanian aborigines.

1877 W.A.—Opening of telegraphic communication with South Australia.
Population of Australia reached 2,000,000.

1878 Qld.—Restriction of Chinese immigration.
Introduction of telephone into Australia.

1879 N.S.W.—First artesian bore at Kallara Station, near Bourke. First steam tramway. W.A.—A. Forrest's explorations in the Kimberley district, and discovery of the Fitzroy pastoral country.

1880 N.S.W.—Public Instruction Act passed. Vic.—First Australian Telephone Exchange opened in Melbourne.
Federal Conference at Melbourne and Sydney.

1881 N.S.W.—Further restrictions on Chinese immigration.
First Australia-wide censuses on same date taken.

1882 W.A.—Nugget of gold found between Roebourne and Cossack.

1883 N.S.W.—Discovery of silver at Broken Hill. Completion of railway between New South Wales and Victoria. Qld.—Annexation of New Guinea—repudiated by Imperial authorities.
Federal Conference held at Sydney. Federal Council created.

1884 Federation Bill passed in Victoria and rejected in New South Wales. British protectorate declared over New Guinea.

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1885	N.S.W.—Military contingent sent to the Sudan. Opening of the Broken Hill Proprietary Silver Mines. W.A.—Gold found by prospectors on the Margaret and Ord Rivers in the Kimberley district. Tas.—Silver-lead discovered at Mount Zeehan.
1886	Tas.—Discovery of gold and copper at Mount Lyell. First session of Federal Council met at Hobart on 26th January.
1887	W.A.—Gold discovered at Southern Cross. First "Colonial" Conference in London. Australasian Naval Defence Force Act passed.
1888	N.S.W.—Restrictive legislation against Chinese, imposing poll-tax of £100. Qld.—Railway communication opened between Sydney and Brisbane. Conference of Australian Ministers at Sydney to consider question of Chinese immigration First meeting of the Australasian Association for the Advancement of Science held in Sydney.
1889	Qld.—Railway communication established between Brisbane and Adelaide. W.A.—Framing of new Constitution. Tas.—University of Tasmania founded. Population of Australia reached 3,000,000.
1890	W.A.—Responsible Government granted. Meeting at Melbourne of Australasian Federation Conference.
1891	N.S.W.—Arrival of Australian Auxiliary Squadron. Cessation of assisted immigration. W.A.—Discovery of gold on the Murchison. First Federal Convention in Sydney, draft bill framed and adopted.
1892	W.A.—Discovery of gold at Coolgardie.
1893	Financial crisis, chiefly affecting the eastern States.
1894	S.A.—Women's suffrage granted—first State to do so.
1895	N.S.W.—Free-trade tariff. Land and income taxes introduced. Conference of Premiers on Federation at Hobart.
1896	N.S.W.—People's Federal Convention at Bathurst. Vic.—Wages Board system established by Act of Parliament.
1897-8	Sessions of Federal Convention at Adelaide, Sydney and Melbourne.
1898	Draft Federal Constitution Bill submitted to electors in Victoria, New South Wales, South Australia and Tasmania. Requisite statutory number of votes not obtained in New South Wales.
1899	First contingent of Australian troops sent to South Africa. Conference of Premiers in Melbourne to consider amendments to Federal Constitution Bill. Referendum—Bill accepted by New South Wales, Victoria, Queensland, South Australia and Tasmania. First Labour Government (Queensland).
1900	N.S.W.—Old-age pensions instituted. Contingents of naval troops sent to China. Commonwealth Constitution Act received Royal Assent, 9th July. Proclamation of Commonwealth signed, 17th September. Mr. (afterwards Sir) Edmund Barton formed first Federal Ministry.
1901	Proclamation of the Commonwealth at Sydney. First Federal Parliament opened at Melbourne by the Duke of Cornwall and York. Interstate free-trade established.
1902	Completion of Pacific Cable (all-British). First Federal Tariff.
1903	Coolgardie and Kalgoorlie Water Supply Scheme completed. Inauguration of the Federal High Court.
1904	Commonwealth Conciliation and Arbitration Act.
1905	Population of Australia reached 4,000,000. Re-introduction of assisted immigration in New South Wales.
1906	Wireless telegraphy installed between Queenscliff, Vic., and Devonport, Tas. Papua taken over by Commonwealth. Excise Tariff Act imposed duties on agricultural machinery except when manufactured "under conditions as to the remuneration of labour which are declared . . . . to be fair and reasonable . . . ."
1907	First telephone trunk line service between Capital Cities, i.e., Sydney and Melbourne. Imperial Conference in London. Declaration of first basic wage in "Harvester Judgment".
1908	Canberra chosen as site of Australian Capital.

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1909 Imperial Defence Conference in London. Visit of Lord Kitchener to report and advise on Australian military defence. Queensland University founded.

1910 Penny Postage. Arrival of *Yarra* and *Parramatta*, first vessels built for the Royal Australian Navy. Australian Notes Act passed and first Commonwealth notes issued. Admiral Sir R. Henderson visited Australia to advise on naval defence.

1911 First Federal Census. Transfer of Australian Capital Territory and Northern Territory to Commonwealth. Introduction of compulsory military training. University of Western Australia founded.

1912 Opening of Commonwealth Bank. First payments of Maternity Bonus. First sod turned at Port Augusta of Trans-Australian Railway.

1913 Australian Capital named Canberra and foundation stone laid. Appointment of Interstate Commission.

1914 Visit of General Sir Ian Hamilton to report on military defence scheme. Double dissolution of Federal Parliament. Transfer of Norfolk Island to Commonwealth.

European War declared 4th August. Australian Navy transferred to British Navy. Australian offer to equip and furnish 20,000 troops accepted. German possessions in South-West Pacific seized by Australian Naval and Military Expeditionary Force. German cruiser *Emden* destroyed by H.M.A.S. *Sydney* at Cocos Islands, 9th November. First contingent landed in Egypt. Australian and New Zealand Army Corps (A.N.Z.A.C.) formed under Sir William Birdwood.

1915 Opening of Broken Hill Proprietary's Ironworks at Newcastle, N.S.W.

Australian and New Zealand troops landed at Gallipoli, 25th April. Evacuation, 18th–20th December. Australian warships with Grand Fleet.

1916 Purchase of steamships by the Commonwealth.

Australian and New Zealand mounted troops organized in mounted divisions and camel corps, operating thereafter in Egypt, Palestine and Syria. Other troops transferred to France. First proposal for compulsory military service overseas defeated by referendum.

1917 National Ministry formed under Rt. Hon. W. M. Hughes. Transcontinental (Kalgoorlie-Port Augusta) Railway completed.

Australian Flying Corps operating with R.F.C. in Palestine and France.

Second proposal for compulsory military service overseas defeated by referendum.

1918 Population of Australia reached 5,000,000. Australia House (Strand, London) opened by the King.

Five Australian divisions in France formed into army corps, 1st January. Armistice with Germany, 11th November. Repatriation Commission created.

1919 Peace Conference. Return of Australian troops. Flight England to Australia by Capt. (Sir) Ross Smith and Lieut. (Sir) Keith Smith. Peace Treaty signed at Versailles, 28th June.

1920 Visit to Australia of H.R.H. the Prince of Wales. Imperial Statistical Conference in London.

1921 Mandate given to Australia over Territory of New Guinea. First direct wireless press message, England to Australia. Second Federal Census.

1922 First lock on River Murray opened at Blanchetown, South Australia. Queensland Legislative Council abolished.

1923 First sod turned on the site of Federal Parliament House at Canberra.

1924 Directorate of Commonwealth Bank appointed. Australian Loan Council formed.

1925 Population of Australia reached 6,000,000. Solar Observatory established at Canberra.

1926 Council for Scientific and Industrial Research established. Imperial Conference. Dominion Status defined.

1927 Transfer of Seat of Commonwealth Government from Melbourne to Canberra. Beam wireless established.

1928 Financial agreement of Commonwealth and States: State Debts referendum carried.

1929 Commonwealth Bank empowered to mobilize gold reserve. Abolition of peacetime compulsory military training in favour of voluntary system.

Year.

1930 Effects of world-wide severe economic depression felt throughout Australia.

Brisbane–Grafton (N.S.W.) railway, first step towards uniform gauge railway communication between capitals of mainland States, opened. First Australian—Rt. Hon. Sir Isaac Alfred Isaacs, G.C.M.G., Chief Justice of the High Court—appointed Governor-General of Australia.

1931 Depression continues. Initiation of Premiers' Conference plan to meet the financial situation. Commonwealth Bank Act amended to provide for temporary lower reserve against notes. England departed from gold standard. Commonwealth Bank assumed control of exchange rate and lowered it to 125 (previously 130).

1932 Sydney Harbour Bridge opened. Australian Broadcasting Commission established. Legislation passed enabling note reserve to be held in sterling securities. Imperial Economic Conference at Ottawa.

1933 World Economic Conference in London. Secession Referendum carried (Western Australia.) Antarctica and Ashmore and Cartier Islands taken over by the Commonwealth. Third Federal Census.

1934 Inauguration of England-Australia Air Mail Service.

1935 Empire Statistical Conference at Ottawa.

1936 Joint Commonwealth and State Marketing Schemes invalidated by decision of the Privy Council in the James case. Tasmania linked with mainland by submarine telephone cable.

1937 Imperial Conference in London. Report of the Royal Commission on Monetary and Banking Systems in Australia.

1938 New Defence Programme involving expenditure of £63,000,000 over three years. New Trade Treaty with Japan.

1939 Population of Australia reached 7,000,000.

War declared on Germany, 3rd September. Royal Australian Navy placed at disposal of Great Britain. Advance party of Australians embarked for Middle East, 15th December.

1940 Exchange of Ministers between Australia and United States of America marked Australia's entry into field of direct diplomatic representation with countries other than the United Kingdom.

First Australian convoy (6th Australian Division) sailed for Middle East. Cruiser *Sydney* crippled Italian cruiser *Bartolomeo Colleoni*.

1941 Establishment of Commonwealth Child Endowment Scheme. United States Congress passed Lend-Lease Bill.

Arrival of units of Eighth Australian Division in Malaya. Australian destroyers in "Tobruk Ferry Run". *Sydney* lost after fight with *Steiermark*. R.A.A.F. in defence of Britain, in Middle East and at Singapore. Australian forces engaged in Middle East, Greece, Crete and Syria. Japanese attack on Pearl Harbour. Australia declared war on Japan, 9th December.

1942. Federal uniform taxation adopted. Commonwealth widows' pensions introduced. Rationing of commodities.

Japanese landed at Rabaul. Fall of Singapore. Darwin bombed. United States armed forces landed in Australia. Head-quarters of South-west Pacific Command set up by General Douglas MacArthur in Melbourne. Coral Sea Battle. Japanese midget submarines in Sydney Harbour. Australian cruisers in attack on Solomon Islands. Australians withdrew from Kokoda. Japanese forced to withdraw from Milne Bay. Owen Stanley Ranges offensive. Ninth Australian Division at El Alamein (North Africa). Kokoda recaptured. Further Australian successes in New Guinea.

1943 Price Stabilization Scheme. Mortgage Bank Department of Commonwealth Bank opened. National Works Council formed.

Australian forces combined with American forces to recapture many places in New Guinea. Commencement of long series of amphibious operations in which R.A.N. ships took part. R.A.A.F. from 1943 till end of war operated on all fronts.

1944 Pay-as-you-earn taxation operated from 1st July. Referendum refused Commonwealth Government increased powers in post-war period.

Year.

Australian advances in Northern New Guinea. Allied invasion of France. Australians landed on New Britain; took over from Americans in Bougainville, Solomon Islands, and at Aitape, New Guinea.

1945 Captain Cook Dock opened by Governor-General, the Duke of Gloucester. Re-establishment and Employment Act. Banking Act to regulate banking and to protect the currency and public credit. Australia ratified United Nations Charter. General demobilization commenced.

Cessation of hostilities in Europe, 8th May. Cessation of hostilities against Japan, 15th August. Australian forces operating in New Guinea, Solomon Islands and Borneo.

1946 Cessation of man-power controls. Commonwealth Government accepted responsibility for supply and maintenance of BCOF in Japan. Inauguration of Commonwealth Employment Service. United Kingdom and Dominion Wool Disposals Ltd. (Joint Organization) commenced operations. Act to establish National University at Canberra. Coal Industry Act. Commonwealth and State agreement on housing. Commonwealth Trans-Australia Airlines began operations. Constitution Alteration Referendum granted powers in regard to social services to Commonwealth. Double taxation relief agreement between Australia and Britain. Approval for establishment of guided missile range in Central Australia. Reciprocal air transport agreement between Australia and United States of America. Defence (Transitional Provisions) Act. Expiry of National Security Act.

1947 End of demobilization. Post-war defence programme to extend over five years approved. Census of Australia—first since 1933. Full High Court declared invalid section of Banking Act 1945 prohibiting banks from conducting business for State authorities. Legislation to nationalize trading banks enacted (*see* 1948). Australian National Antarctic Research Expedition to establish scientific research station at Heard Island. First "displaced persons" reached Australia.

1948 Forty-hour week effective throughout Australia. Membership of Commonwealth Parliament increased. Constitution Alteration (Rents and Prices) proposal defeated. High Court declared invalid certain vital sections of Banking Act 1947. Professor Marcus L. Oliphant, F.R.S., accepted appointment as Director of Post-Graduate Research School of Physical Sciences at Australian National University. Tuberculosis Act. Opening session of Economic Commission for Asia and Far East at Lapstone (N.S.W.). First display of new Australian-made car, the "Holden". International Trade Organization Act (General Agreement on Tariffs and Trade and Havana Charter for International Trade Organization).

1949 Nationality and Citizenship Act operative. Broadcasting Control Board came into operation. New Guinea placed under international trusteeship and administrative union of Papua and New Guinea established. Certain Australian aborigines for first time granted franchise at Federal elections. Agreement reached on arrangements for increasing meat exports from Australia to United Kingdom (subsequent legislation to assist in facilitating movement of livestock in Australia). Melbourne selected as site for 1956 Olympic Games. Provision in Tasmania for compulsory X-ray examination and treatment of all persons suffering from tuberculosis. Establishment of New South Wales University of Technology. Ratification completed by all Governments concerned of Murray River Agreement for enlarging of Hume Weir. Border River scheme commenced on Dumaresq River. Dispute over claims for 35-hour week, 30s. a week wage increase, and long-service leave rendered all Australian black coal mines idle from 27th June until 15th August, causing restrictions in dependent services and unemployment. Australia ratified International Wheat Agreement. Conciliation and Arbitration Act amended to prevent irregularities in elections for offices in organizations registered under Act. Establishment of Australian Whaling Commission. Liquid fuel importers required by law to hold stocks of fuel for defence needs. Following report on Finance Ministers Conference in

Year.

1949—*contd.* London, Federal Cabinet sub-committee approved 25 per cent. reduction in Australia's imports from dollar areas. Coal Industry Tribunal granted long-service leave to miners throughout Australia—not to be commenced before June, 1954. Devaluation of sterling against American dollar, and commensurate devaluation of Australian pound to two dollars twenty-four cents. Establishment of Immigration Planning Council to assist in assimilation of migrants into industry and the community. Commencement of Snowy Mountains Hydro-electric Power Scheme. Agreement on rail standardization, replacing original agreement of 1946, ratified by Commonwealth and South Australian Governments. Australia's population reached 8,000,000. Balance of Australia's lend-lease debt to United States liquidated by Fullbright Agreement.

1950 Projected commencement announced of uranium production in South Australia. Conference of British Commonwealth Foreign Ministers at Colombo discussed Japanese peace treaty problems. Australian Citizenship Convention to assist in assimilation of migrants opened at Canberra. Petrol rationing abolished for second time since end of war. Melbourne to be declared an international airport. International Labour Office Conference in Sydney on subject of pneumoconiosis. Opening of Nineteenth Commonwealth Parliament. Loan of £625,000 to Burma by Commonwealth Government. Senate and House of Representatives failed to agree on Commonwealth Bank Bill. Severest flooding for twenty-five years in south-east corner of New South Wales. Commonwealth Crimes Act proclaimed to combat rolling strikes on Brisbane water-front. Motion to have New England District made a separate State and to hold referendum rejected in New South Wales Legislative Assembly. Sir Owen Dixon, Justice of High Court, chosen as United Nations mediator for Kashmir dispute. Appointment of first Australian ambassador to United States of Indonesia. Report released of Victorian Royal Commission on origins, aims, objects, funds and activities of Communist Party. Tenders accepted in Victoria for supply of 293 prefabricated school units capable of accommodating 23,000 children. British Consultative Committee meeting in Sydney on ways of assisting development of south and south-east Asia in co-operation with other interested governments. Appointment of first Australian Minister to Philippines. British Government approval of plan to recruit British migrants, including tradesmen, to serve in Australian Regular Army, and afterwards settle in Australia. Australian Dakota Transport Squadron to assist United Kingdom forces in Malaya; later decided to send squadron of heavy bombers also. Sir Thomas Blamey first Australian to be elevated to rank of Field-Marshal. Arrival of Field-Marshal Sir William Slim, Chief of Imperial General Staff, for defence talks. First Minister for Israel in Australia arrived. Abolition of butter rationing. Constitution (Avoidance of Double Dissolution Deadlocks) Bill referred by Senate to a Select Committee. Communist Party Dissolution Bill formally laid aside after failure of Senate and House of Representatives to agree. Disastrous floods on north coast of New South Wales. Crash of airliner *Amana* near Perth, with loss of 28 lives, worst disaster in Australian civil aviation. Following attacks by forces of North Korea on forces of Republic of Korea and failure of Security Council's call for immediate cessation of hostilities, the Council called on members to furnish assistance to Republic of Korea. Australian naval and air forces in vicinity of Korea placed at disposal of United Nations, and decision to withdraw Australian troops with BCOF in Japan countermanded. Scheme of reserve prices for wool to replace existing Joint Organization system enacted (*see* below). Abolition of tea rationing ended retail rationing in Australia. Queensland Government to proceed with plans to build Burdekin Dam and Tully Falls hydro-electric scheme. Arrival of first ambassador for United States of Indonesia. Prime Minister left on visit to London, Washington, Ottawa, Vancouver and New Zealand for discussions on defence, migration and financial matters; negotiated $100,000,000 loan for Australia with International Bank for Reconstruction and Development. Commencement

Year.

1950—*contd.* of new scheme of tuberculosis allowances. Initial force of 1,000 ground troops to be recruited for service in Korea. Validity of Commonwealth wool levy scheme challenged in High Court, but hearing subsequently postponed pending result of referendum of woolgrowers (*see* 1951). Inauguration of modified free medicine scheme, covering 135 expensive drugs, including sulpha drugs, penicillin, insulin and vitamin B. Announcement of King and Queen's intention to carry out their postponed (1949) visit to Australia and New Zealand in 1952, possibly accompanied by the Princess Margaret (*see* 1951). All volunteers in Australian Regular Army and Citizen Military Forces to be liable for service anywhere in the world. Australian ground troops joined British Commonwealth Brigade in Korean conflict. Orders placed by Commonwealth and States for importation of 10,440 prefabricated houses. Opening of drive for recruits to Australian permanent, reserve and part-time forces. Introduction of Commonwealth Bank Bill 1950 (No. 2) in House of Representatives (referred to Select Committee 14th March, 1951). Adult franchise for Victorian Legislative Council replaced existing franchise dependent on property qualifications. Commonwealth Court of Conciliation and Arbitration ruling of increase of £1 in male basic wage, and increase in female basic wage from 54 to 75 per cent. of male rate. Railway dispute caused cessation of railway services in Victoria from 16th October to 8th December, and in South Australia from 23rd October to 19th November. Communist Party Dissolution Bill 1950 (No. 2) assented to. Validity of Act challenged in High Court (declared invalid on 9th March, 1951). "Food for Britain" Fund closed after five years of existence, after despatch of 12,000 tons of food. Agreement to bring 25,000 Dutch migrants to Australia in 1951 and larger numbers in future years. National Service Bill to establish a system of national training for defence forces of Australia introduced in House of Representatives—provides for compulsory registration and call-up at 18 years of age of all male British and certain non-British subjects resident in Australia (Act assented to 17th March, 1951). Volunteers in Australian Citizen Military Forces to be liable for oversea service only in the event of a major war. Scheme for pre-emption of 100,000,000 lb. of wool for military reserve for United States of America declared impracticable at present. National Security Resources Board appointed to advise Government on best use of Australia's resources in interests of national security. Act to provide Commonwealth assistance to States to enable them to supply free milk to school children. Defence (Transitional Provisions) Act extending for one year a number of national security regulations and orders. Commonwealth Government to contribute £31,250,000 to Colombo Plan for Co-operative Economic Development in South and South-east Asia and £3,500,000 for technical assistance programme. Five-year migration agreement with Italy under which not more than 15,000 Italians will enter Australia in initial period of operation. Conference of Commonwealth Prime Ministers in London.

1951 Opening of Jubilee celebrations to mark the fiftieth year of Australian federation. Violent eruption of Mt. Lamington in Papua, in which 35 Europeans and about 2,000 Papuans perished. Meeting of Governors of central banks of Australia, Ceylon, Ireland, New Zealand, Pakistan, South Africa and the United Kingdom to discuss general banking problems and the international economic situation. British Government's confirmation of transfer of Heard Island and the Macdonald Islands (Southern Indian Ocean) to Australia as from 26th December, 1947. Arrival in Canberra of President's Truman's special Envoy, Mr. John Foster Dulles, for talks on a Japanese peace treaty. Death of Professor L. F. Giblin, D.S.O., M.C., noted Australian economist. Governor-General granted double dissolution of nineteenth Parliament on the grounds that the Senate had "failed to pass" the Commonwealth Bank Bill. (*See* 1950). Survey flight to Chile by Captain P. G. Taylor. Chief Justice of the High Court of Australia, Sir John Latham, retired from active duty. Return of Menzies–Fadden Government after general election following

Year.

1951—*contd.* double dissolution (*see* above). Death of Very Reverend John Flynn, "Flynn of the Inland", who was largely responsible for "Flying Doctor" services and the accompanying system of radio communication. First wool from Hallstrom Live-stock Experimental Station, New Guinea, auctioned at Sydney wool sales. Death of Field-Marshal Sir Thomas Blamey (*see* 1950). The Governor-General opened the twentieth Parliament with special Jubilee ceremonies. Death of the Leader of the Federal Opposition, and former Prime Minister and Treasurer, the Rt. Hon. J. B. Chifley. Official cessation of hostilities with Germany. Large upward adjustments in federal basic wage (13s. in six capital cities average). Defence Preparations Act to adjust the nation's economy to meet the threat of war. Final liquidation of the stock of the United Kingdom—Dominion Wool Disposals Ltd. (Joint Organization). Conference of representatives of the Commonwealth and State Governments, employers and trade unions, and other sections of the community, called by the Prime Minister to discuss means of combating inflation. First youths to receive call-up notices under National Service Act 1951 commenced training. Royal Commission to inquire into hotel control, operation of Liquor Act, and distribution of liquor in New South Wales. The Governor of the Commonwealth Bank, the heads of commercial banks and the Secretary to the Treasury in conference called by the Prime Minister to discuss bank credit policy. General financial and investment policy considered at conference between the Government and representatives of insurance companies. Loan Council approved a rise in the long-term bond rate from 3⅛ per cent. to 3¾ per cent. to apply to Thirteenth Security Loan. Woolgrowers at a referendum rejected the proposal for a reserve price plan for wool (*see* 1950). Prices at new season's (August) wool auctions in Sydney 25 per cent. below those of June. Security Treaty signed in Washington by the United States of America, Australia and New Zealand for action in the event of an armed attack in the Pacific. Arrival at Port Kembla of first shipment of iron ore from Yampi Sound, Western Australia. Japanese Peace Treaty signed at San Francisco by 49 nations, including Australia. Constitution Alteration (Powers to deal with Communists and Communism) referendum resulted in a decision against the proposed Act. Extensive bushfires during October in Queensland, Northern Territory and northern New South Wales. Australia to provide an additional infantry battalion for United Nations forces in Korea. The Prime Minister announced that Australia would spend about £700,000,000 on defence during the next three years. Announcement of intended visit in 1952 of Princess Elizabeth and the Duke of Edinburgh to Australia and New Zealand in place of the King and Queen.* Further large upward adjustments (*see* above) in federal basic wage—11s. for six capital cities average. The Governor-General, the Right Honorable W. J. McKell, K.C., created Knight Grand Cross of the Order of St. Michael and St. George. Third Conference of Government Statisticians of the British Commonwealth, held in Canberra. Opening of new Legislative Council of Papua and New Guinea, which included, for the first time in the history of Australian Legislature, representatives of the native peoples. New mace presented to the House of Representatives by a delegation from the House of Commons, to commemorate the Jubilee of the Australian Commonwealth. Serious bushfires in Blue Mountains, New South Wales. Act to re-establish Commonwealth Joint Parliamentary Committee of Public Accounts.

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* This visit was cancelled following the death, on 6th February, 1952, of His Majesty King George VI.

OFFICIAL YEAR BOOK

OF THE

COMMONWEALTH OF AUSTRALIA.

CHAPTER I.

DISCOVERY, COLONIZATION AND FEDERATION OF AUSTRALIA.

§ 1. Early Knowledge and Discovery of Australia.

1. **Introduction.**—Only a brief summary of the more important facts relating to the early history of Australian discovery is given in this Chapter. A more complete account of this subject, together with bibliographical references thereto, may be found in Official Year Book No. 1 (pp. 45–51), although this account must be modified somewhat in view of later investigations.

2. **Early Tradition.**—It would appear that there was an early Chaldean tradition as to the existence of an Austral land to the south of India. Rumours to that effect in the course of time found their way to Europe, and were probably spread by travellers from Indian seas, more especially by the Greek soldiers who accompanied Alexander the Great (356–323 B.C.) to India. References to this *Terra Australis* are found in the works of Ælianus (A.D. 205–234), Manilius (probably a contemporary of Augustus or Tiberius Cæsar), and Ptolemy (A.D. 107–161). In some of the maps of the first period of the Middle Ages there is evidence which might warrant the supposition of the knowledge of the existence of a *Terra Australis*, while some idea of the Austral land appears in the maps and manuscripts of the fourteenth and fifteenth centuries. But much of the map-drawing in these early days was more or less fanciful, and there is no evidence definitely connecting this so-called *Terra Australis* with Australia.

3. **Discovery of Australia.**—(i) *General.* The Venetian traveller Marco Polo (1254–1324) refers to a land called Locac, which through a misunderstanding of his meaning was long thought to be Australia. But Marco Polo knew nothing of any land to the south of Java, and in any case the description given of the so-called Locac could not possibly be applied to Australia, as the writer speaks of elephants, etc. On a Mappamundi in the British Museum, of not later date than 1489, there is a coast-line which has been considered to represent the west coast of Australia. Investigation by Wood and others proves this claim to be merely fanciful. Martin Behaim's globe, the oldest known globe extant, constructed in 1492, also shows what purports to be a part of Australia's coast-line, and a globe discovered in Paris bears an inscription to the effect that the *Terra Australis* was discovered in 1499. These also have other countries located in impossible positions. The term *Terra Australis* was, however, also applied to the region now known as Tierra del Fuego, hence little weight can be attached to this reference.

In the Dauphin map (about 1530–1536) Java la Grande has been supposed by some to represent Australia, but an inspection of the unreal animals and other figures thereon lends no weight to the idea. As a matter of fact, much of this map drawing was simply an attempt to support the old notion that the land surface of the southern hemisphere must balance that of the northern.

(ii) *Arab Expeditions.* It has been stated that the Arabs had come to Australia long before the Portuguese, the Spaniards or the Dutch, but there is no evidence to support the statement.

(iii) *Spanish and Portuguese Expeditions.* The last decade of the fifteenth century and the commencement of the sixteenth saw numerous expeditions equipped in the ports of Spain and Portugal for the purpose of exploiting the new world. The Portuguese rounded the Cape of Good Hope in 1487 and eleven years later pushed eastward to India. The Spaniards, relying on the scientific conclusion that the world was spherical, attempted to get to the East by deliberately starting out west, Magalhaens by so doing reaching the Philippine Islands in 1521.

In 1606 Quiros, on reaching the island that has retained the name of Espiritu Santo (the largest island of the New Hebrides group), thought that he had discovered the great land of the south, and therefore named the group *La Australia del Espiritu Santo.* After leaving the New Hebrides, Quiros sailed eastward, but Torres, his second-in-command, took a westerly course and passed through the strait that now bears his name. In all probability he sighted the Australian Continent, but no mention is made of this fact in his records. This voyage marks the close of Spanish activity in the work of discovery in the South Seas.

(iv) *Discoveries by the Dutch.* With the decline of Portuguese and Spanish naval supremacy came the opportunity of the Dutch for discovery. Cornelius Wytfliet's map, of which there was an English edition, published in Louvain in 1597, indicates roughly the eastern and western coasts of Australia, as well as the Gulf of Carpentaria. The following oft-quoted passage occurs in Wytfliet's *Descriptionis Ptolemaicae Augmentum:* "The *Australis Terra* is the most southern of all lands. It is separated from New Guinea by a narrow strait. Its shores are hitherto but little known, since after one voyage and another, that route has been deserted and seldom is the country visited, unless when sailors are driven there by storms. The *Australis Terra* begins at one or two degrees from the equator, and is maintained by some to be so great in extent that, if it were thoroughly explored, it would be regarded as a fifth part of the world." According to Wood this passage has its origin in the voyages through the Straits of Magellan and the discovery of Tierra del Fuego rather than that of Australia.

The Dutch discovered Australia when the Dutch East India Company sent the *Duyfken* from Bantam to explore the islands of New Guinea. During March, 1606 the *Duyfken* coasted along the southern shores of New Guinea, and followed the west coast of Cape York peninsula as far as Cape Keer-Weer (Turn Again). Dirck Hartogs (on the plate in the Amsterdam Museum recording his voyage the name is written Dirck Hatichs), in the *Eendracht* in 1616, sailed along a considerable part of the west coast of the continent. It may be mentioned that the route was not definitely selected, but that the navigator simply went farther east than the usual course from the Cape to Java.

In 1618 the *Zeewolf* found land in latitude 20° 15′ south, and in the following year Frederik Houtman discovered the reef of the west coast, now known as *Houtman's Abrolhos.*

In 1622 the Dutch vessel *Leeuwin* rounded the Cape, which now bears that name, at the south-west of the continent, and in 1623 the Dutch vessels *Pera* and *Arnhem* discovered Arnhem Land, the peninsula on the western side of the Gulf of Carpentaria, which was so named in compliment to Peter Carpentier, Governor of the Dutch East India Company.

In 1627 Francis Thysz, Commander of the *Gulde Zeepaerd,* with Pieter Nuyts of the Dutch Council of Seventeen on board, coasted along a portion of the shore of the Great Australian Bight. In 1628 De Witt, Commander of the *Vianen,* discovered land on the north-west, namely, in about latitude 21° S. The *Batavia,* commanded by Francis Pelsart, was wrecked on the western coast of Australia in 1629. Pelsart was the first to carry to Europe an authentic account of the west coast of Australia, which, however, be described in the most unfavourable terms. The yachts *Amsterdam* and *Wesel,* under Gerrit Pool, visited the Gulf of Carpentaria in 1636.

Abel Janszoon Tasman, in command of two vessels, the *Heemskerck* and *Zeehan,* set out from Batavia in 1642 to ascertain the extent of the great southern continent. He named Van Diemen's Land, imagining it to be part of Australia proper, and sailing north-easterly discovered New Zealand and returned to Batavia. In his second voyage in 1644 Tasman visited the northern coast of Australia, sailing round the Gulf of Carpentaria and along the north-west coast as far down as the tropic of Capricorn.

William de Vlamingh landed at the mouth of the Swan River at the end of 1696 and an exploring squadron under Martin Van Delft explored and named part of the north-west coast in 1705, but the period of Dutch discoveries may be said to have ended with Tasman's second voyage, and, with the decline of her maritime power, the Dutch interest in Australian discovery disappeared.

4. **Discoveries by the English.**—In the meantime the English had made their first appearance on the Australian coast in 1688, when the north-westerly shores were visited by William Dampier, as supercargo of the *Cygnet*, a trading vessel whose crew had turned buccaneers. In describing the country, Dampier stated that he was certain that it joined neither Asia, Africa nor America. In 1699 he again visited Australia, in command of H.M.S. *Roebuck*, and on his return to England published an account in which a description is given of trees, flowers, birds and reptiles observed, and of encounters with natives.

It was a question at the end of the seventeenth century whether Tasmania and New Zealand were parts of Australia, or whether they were separated from it, but themselves formed part of a great Antarctic Continent. Lieutenant James Cook's first voyage, though primarily undertaken for the purpose of observing the transit of Venus from Otaheite, had also for its objective to ascertain whether the unexplored part of the southern hemisphere was only an immense mass of water or contained another continent. In command of H.M.S. *Endeavour*, a barque of 370 tons burden, carrying about 85 persons, and accompanied by Sir Joseph Banks, Dr. Solander the naturalist, Green the astronomer, draughtsmen and servants, Cook, after observing the transit of Venus at Otaheite, turned towards New Zealand, sighting that land on 7th October, 1769 in the neighbourhood of Poverty Bay. Circumnavigating the North and South Islands, he proved that New Zealand was connected neither with the supposed Antarctic Continent nor with Australia, and took formal possession thereof in the name of the British Crown. On 20th April, 1770, at 6 a.m., Cook sighted the Australian mainland at a place he called Point Hicks, naming it after his first-lieutenant, who first saw it. Coasting northwards, Botany Bay was discovered on 29th April, 1770. The *Endeavour* dropped anchor and Cook landed on the same day. Cook sailed along the coast in a northerly direction for nearly 1,300 miles until 11th June, 1770, when the *Endeavour* was seriously damaged by striking a coral reef in the vicinity of Trinity Bay. Repairs occupied nearly two months, and the *Endeavour* then again set her course to the north, sailing through Torres Strait and anchoring in the Downs on 13th July, 1771. In 1772 Cook was put in command of the ships *Resolution* and *Adventure*, with a view to ascertaining whether a great southern continent existed. Having satisfied himself that, even if it did, it lay so far to the south as to be useless for trade and settlement, he returned to England in 1774. Cook's last voyage was undertaken in 1776, and he met his death on 14th February, 1779, by which date practically the whole coast of Australia had been explored. The only remaining discovery of importance was the existence of a channel between Tasmania and Australia. This was made by Flinders and Bass in 1798.

§ 2. The Annexation of Australia.

1. **Annexation of Eastern Part of Australia, 1770.**—Although representatives of the nations mentioned in the previous section landed or claimed to have landed on the shores of Australia on various occasions during the sixteenth and seventeenth centuries, it was not until 23rd August, 1770 that the history of Australia was brought into definite political connexion with Western civilization. It was on that date that Captain Cook took possession "of the whole eastern coast, from latitude 38° to this place, latitude $10\frac{1}{2}°$ S., in right of His Majesty King George the Third." Cook, however, proclaimed British sovereignty over only what are now the eastern parts of New South Wales and Queensland, and formal possession, on behalf of the British Crown, of the whole of the eastern part of the Australian continent and Tasmania was not taken until 26th January, 1788. It was on this last date that Captain Phillip's commission, first issued to him on 12th October, 1786, and amplified on 2nd April, 1787, was read to the people whom he had brought with him in the "First Fleet."

A full historical account of the period referred to may be found in the *Historical Records of New South Wales* Vol. I., parts 1 and 2.

2. **Original Extent of New South Wales.**—The commission appointed Phillip "Captain-General and Governor-in-Chief in and over our territory called New South Wales, extending from the Northern Cape or extremity of the coast called Cape York, in the latitude of ten degrees thirty-seven minutes south, to the southern extremity of the said territory of New South Wales or South Cape, in the latitude of forty-three degrees thirty-nine minutes south, and of all the country inland westward as far as the one hundred and thirty-fifth degree of east longitude reckoning from the meridian of Greenwich, including all the islands adjacent in the Pacific Ocean within the latitudes aforesaid of ten degrees thirty-seven minutes south and forty-three degrees thirty-nine minutes south."

Although in November, 1769 Captain Cook had taken possession of the North Island of New Zealand, and in January, 1770 also of the South Island, it is a matter of doubt whether, at the time when Captain Phillip's commission was drawn up, New Zealand was considered as one of the "islands adjacent in the Pacific Ocean." The facts that under the Supreme Court Act (Imperial) of 1823 British residents in New Zealand were brought under the jurisdiction of the Court at Sydney, while in 1839 there was a proposal on the part of the British Government to appoint a consul in New Zealand, would leave this an open question, as nothing more than extra-territorial jurisdiction may have been intended. Various hoistings of flags notwithstanding, New Zealand does not appear to have unequivocally become British territory until 1840. In that year, on 29th January, Captain Hobson arrived at the Bay of Islands. On the following day he read the commission, which extended the boundaries of the Colony of New South Wales so as to embrace and comprehend the islands of New Zealand. On 5th February the Treaty of Waitangi, made with the native chiefs, was signed. Finally, on 21st May, British sovereignty over the islands of New Zealand was explicitly proclaimed.

3. **Extension of New South Wales Westward, 1825.**—On 17th February, 1824 Earl Bathurst advised Sir Thomas Brisbane that he had recommended to His Majesty the dispatch of a ship of war to the north-west coast of New Holland for the purpose of taking possession of the coast between the western coast of Bathurst Island and the eastern side of Coburg Peninsula. Captain James J. Gordon Bremer of H.M.S. *Tamar*, who was selected for the purpose, took possession on 20th September, 1824 of the coast from the 135th to the 129th degree of east longitude. On 16th July, 1825 the whole territory between those boundaries was described in Darling's commission as being within the boundaries of New South Wales, thus increasing its area by 518,134 square miles, and making it, including New Zealand and excluding Tasmania, 2,076,308 square miles, or also excluding New Zealand, 1,972,446 square miles.

4. **Annexation of Western Australia, 1827.**—An expedition under Major Lockyer, sent by Lieutenant-General Sir Ralph Darling, then Governor of New South Wales, to found a settlement at King George III. Sound, sailed from Sydney on 9th November, 1826, landed at the Sound on 26th December following, and hoisted the British flag. Captain Stirling, in command of H.M.S. *Success*, arrived at Sydney a few weeks after the departure of the expedition to King George's Sound. He obtained the Governor's permission to visit Swan River with a view to seizing a position on the western coast and reporting upon its suitability as a place of settlement. Captain Stirling left Sydney on 17th January, 1827, and on his return in the following April submitted a glowing report on what he described as a "rich and romantic country," urging its occupation for the purpose of settlement. He left for England in July, 1827, continuing his advocacy—notwithstanding much discouragement—with unabated enthusiasm. He was at last successful, the result being mainly due to the formation of an association of prospective settlers having capital at their disposal. He was appointed Lieutenant-Governor and with a party of settlers arrived at Garden Island, near the Swan River,

in the ship *Parmelia* in June, 1829. On the 2nd of the preceding month Captain Fremantle, in command of H.M.S. *Challenge*, arrived and hoisted the British flag on the south head of Swan River, again asserting possession of "all that part of New Holland, which is not included within the territory of New South Wales." Thus, before the middle of 1829, the whole territory now known as the Commonwealth of Australia had been constituted a dependency of the United Kingdom.

§ 3. The Creation of the Several Colonies.

1. **New South Wales.**—In Governor Phillip's commission of 1786 the mainland of Australia was divided by the 135th meridian of east longitude into two parts. The earliest colonists believed that the present State of Tasmania was actually joined to the mainland, and it was not till 1798 that the contrary was known. In that year, by sailing through Bass Strait, Flinders and Bass proved that it was an island. The territory of New South Wales, as originally constituted, and of New Zealand, which may be included although Cook's annexation was not properly given effect to until 1840, consisted of 1,584,389 square miles. A further area of 518,134 square miles was added in 1825, when the western boundary was extended to the 129th meridian. The territory was subsequently reduced by the separation of various areas to form the other colonies, and at the time of the establishment of the Commonwealth the area of New South Wales was 310,372 square miles.

2. **Tasmania.**—In 1825 Van Diemen's Land, as Tasmania was then called, was politically separated from New South Wales, being constituted a separate colony on 14th June of that year. The area of the colony was 26,215 square miles.

3. **Western Australia.**—The territory westward of the 129th meridian comprising 975,920 square miles was constituted a colony under the name of Western Australia in June, 1829. It was always distinct and independent of New South Wales, though until 1831 the settlement on King George's Sound remained under the latter jurisdiction.

4. **South Australia.**—On 15th August, 1834 the Act 4 and 5 William IV., cap. 95, was passed, creating South Australia a "province," and towards the end of the year 1836 settlement took place. The first Governor, Captain Hindmarsh, R.N., arrived at Holdfast Bay on 28th December, 1836, and on the same day the new colony was officially proclaimed. The new colony embraced 309,850 square miles of territory, lying south of the 26th parallel of south latitude, and between the 141st and 132nd meridians of east longitude. On 10th December, 1861, by the authority of the Imperial Act 24 and 25 Vic., cap. 44, the western boundary of South Australia was extended to coincide with the eastern boundary of Western Australia, namely, the 129th meridian. The area of the extension was approximately 70,220 square miles. Nearly two years later, on 6th July, 1863, the Northern Territory comprising 523,620 square miles was, by letters patent, brought under the jurisdiction of South Australia, which therefore controlled an area of 903,690 square miles.

5. **New Zealand.**—New Zealand, nominally annexed by Captain Cook and formally declared by proclamation in 1840 as a dependency of New South Wales, was, by letters patent of 16th November of that year, constituted a separate colony under the powers of the Act 3 and 4 Vic., cap. 62, of 7th August, 1840. Proclamation of the separation was made on 3rd May, 1841. The area of the colony was 103,862 square miles.

6. **Victoria.**—In 1851 what was known as the "Port Phillip District" of New South Wales was constituted the colony of Victoria, "bounded on the north and northwest by a straight line drawn from Cape Howe to the nearest source of the River Murray and thence by the course of that river to the eastern boundary of the colony of South Australia." The area of the new colony was 87,884 square miles, and its separate existence took effect from 1st July, 1851, upon the issuing of the writs for the first election of elective members of the Legislative Council.

7. **Queensland.**—The northern squatting districts of Moreton, Darling Downs, Burnett, Wide Bay, Maranoa, Leichhardt and Port Curtis, together with the reputed county of Stanley, were granted an independent administration and formed into a distinct colony under the name of Queensland by letters patent dated 6th June, 1859, although separation from New South Wales was not consummated until 10th December of the same year, upon the assumption of office of the first Governor. The

territory comprised in the new colony was so much of the colony of New South Wales as lies northwards of a line commencing on the sea-coast at Point Danger in latitude about 28° 8′ south, running westward along the Macpherson and Dividing Ranges and the Dumaresq River to the MacIntyre River, thence downward to the 29th parallel of south latitude, and following that parallel westerly to the 141st meridian of east longitude, which is the eastern boundary of South Australia, together with all the adjacent islands, their members, and appurtenances in the Pacific Ocean. The area of the colony thus constituted was 554,300 square miles. By letters patent dated 13th March, 1861, forwarded by the Colonial Secretary to the Governor of Queensland on 12th April, 1862, the area of Queensland was increased by the annexation of "so much of the colony of New South Wales as lies to the northward of the 26th parallel of south latitude, and between the 141st and 138th meridians of east longitude, together with all and every the adjacent islands, their members, and appurtenances, in the Gulf of Carpentaria." With this addition the area of Queensland became 670,500 square miles.

§ 4. Establishment of the Commonwealth of Australia.

1. **General.**—On 1st January, 1901 the colonies mentioned, with the exception of New Zealand, were federated under the name of the "Commonwealth of Australia," the designation of "Colonies"—except in the case of the Northern Territory, to which the designation "Territory" is applied—being at the same time changed into that of "States." The total area of the Commonwealth of Australia is 2,974,581 square miles. The dates of creation and the areas of its component parts, as determined on the final adjustment of their boundaries, are shown below :—

THE COMMONWEALTH OF AUSTRALIA : AREA, ETC., OF COMPONENT PARTS.

State.	Year of Formation into Separate Colony.	Present Area in Square Miles.	State.	Year of Formation into Separate Colony.	Present Area in Square Miles.
New South Wales(a)	1786	310,372	Tasmania ..	1825	26,215
Victoria ..	1851	87,884	Northern Territory	1863	523,620
Queensland ..	1859	670,500			
South Australia ..	1834	380,070	Area of the Commonwealth ..	..	2,974,581
Western Australia	1829	975,920			

(a) Includes the Australian Capital Territory embracing an area of 911 square miles, and 28 square miles at Jervis Bay. *See* par. 3 below.

2. **Transfer of the Northern Territory to the Commonwealth.**—On 7th December, 1907 the Commonwealth and the State of South Australia entered into an agreement for the surrender to and acceptance by the Commonwealth of the Northern Territory, subject to approval by the Parliaments of the Commonwealth and the State. This approval was given by the South Australian Parliament under the Northern Territory Surrender Act 1907 (assented to on 14th May, 1908), and by the Commonwealth Parliament under the Northern Territory Acceptance Act 1910 (assented to on 16th November, 1910). The Territory was formally transferred to the Commonwealth on 1st January, 1911, and became the Northern Territory of Australia.

3. **Transfer of the Australian Capital Territory to the Commonwealth.**—On 18th October, 1909 the Commonwealth and the State of New South Wales entered into an agreement for the surrender to and acceptance by the Commonwealth of an area of 911 square miles as the seat of Government of the Commonwealth. In December, 1909 Acts were passed by the Commonwealth and New South Wales Parliaments approving the agreement, and on 5th December, 1910 a proclamation was issued vesting the Territory in the Commonwealth on and from 1st January, 1911. By the Jervis Bay Territory Acceptance Act 1915, an area of 28 square miles at Jervis Bay, surrendered by New South Wales according to an agreement made in 1913, was accepted by the Commonwealth, and was transferred as from 4th September, 1915.

4. **Transfer of British New Guinea or Papua.**—Under the administration of the Commonwealth, but not included in it, is British New Guinea or Papua, finally annexed by the British Government in 1884. This Territory was for a number of years administered by the Queensland Government, but was transferred to the Commonwealth by proclamation on 1st September, 1906, under the authority of the Papua Act (Commonwealth) of 16th November, 1905. The area of Papua is about 90,540 square miles.

5. **Transfer of Norfolk Island.**—Although administered for many years by the Government of New South Wales, this Island was a separate Crown Colony until 1st July, 1914, when it was transferred to the Commonwealth under the authority of the Norfolk Island Act 1913. The Island is situated in latitude 29° 3′ 45″ S. longitude 167° 56′ 29″ E., and comprises an area of 8,528 acres.

6. **Territory of New Guinea.**—In 1919 it was agreed by the Principal Allied and Associated Powers that a mandate should be conferred on Australia for the government of the former German territories and islands situated in latitude between the Equator and 8° S., and in longitude between 141° E. and 159° 25′ E. The mandate was issued by the League of Nations on 17th December, 1920. The Governor-General of the Commonwealth was authorized to accept the mandate by the New Guinea Act 1920, which also declared the area to be a Territory under the authority of the Commonwealth by the name of the Territory of New Guinea. The Territory comprises about 93,000 square miles, and the administration under the mandate dated from 9th May, 1921. New Guinea is now administered under Trusteeship Agreement with the United Nations, approved 13th December, 1946. For further particulars *see* Chapter X.—The Territories of Australia.

7. **Nauru.**—In 1919 the Governments of the United Kingdom, Australia and New Zealand entered into an agreement to make provision for the exercise of the mandate conferred on the British Empire for the administration of the island of Nauru, and for the mining of the phosphate deposits thereon. The island is situated in latitude 0° 32′ south of the Equator and longitude 166° 55′ east of Greenwich, and comprises about 5,263 acres. The agreement provided that the administration of the island should be vested in an administrator, the first appointment to be made by the Commonwealth Government, and thereafter in such manner as the three Governments decided. The agreement was approved by the Commonwealth Parliament in the Nauru Island Agreement Act 1919, and a supplementary agreement of 30th May, 1923, giving the Government immediately responsible for the administration greater powers of control over the Administrator, was approved in 1932. The administration under the mandate has operated from 17th December, 1920, and so far the administrators have been appointed by the Commonwealth Government. As with the Territory of New Guinea, Nauru is now administered under Trusteeship Agreement with the United Nations.

8. **Territory of Ashmore and Cartier Islands.**—By Imperial Order in Council, dated 23rd July, 1931, Ashmore Islands, known as Middle, East and West Islands, and Cartier Island, situated in the Indian Ocean off the North-west Coast of Australia, were placed under the authority of the Commonwealth. The Islands were accepted by the Commonwealth in the Ashmore and Cartier Islands Acceptance Act 1933 under the name of the Territory of Ashmore and Cartier Islands and were transferred on 10th May, 1934. The Act authorized the Governor of Western Australia to make ordinances having the force of law in and in relation to the Territory. An amendment to the 1933 Act in July, 1938 annexed the Islands to the Northern Territory, whose laws, ordinances and regulations, wherever applicable, thereupon applied.

9. **Australian Antarctic Territory.**—An Imperial Order in Council of 7th February, 1933 placed under Australian authority "all the islands and territories other than Adélie Land which are situated south of the 60th degree of South Latitude and lying between the 160th degree of East Longitude and the 45th degree of East Longitude."

The Order came into force with a proclamation issued by the Governor-General on 24th August, 1936, after the Commonwealth Parliament had passed the Australian Antarctic Territory Acceptance Act on 13th June, 1933. The boundaries of Adélie Land were definitely fixed by a decree of 1st April, 1938 as latitude 60° S., longitude 136° E. and longitude 142° E.

10. **Macquarie Island and Heard Island.**—Macquarie Island, about 1,000 miles south-east of Hobart, has been a dependency of Tasmania since the nineteenth century. Heard Island, about 2,500 miles south-west of Fremantle, was transferred from United Kingdom to Australian control as from 26th December, 1947.

§ 5. The Exploration of Australia.

A fairly complete, though brief, account of the exploration of Australia was given in Official Year Book No. 2 (pp. 20–39), and a summary of the more important facts relating to the subject was embodied in this Chapter in succeeding issues up to and including No. 22.

§ 6. The Constitutions of the States and of the Commonwealth.

1. **General.**—Information regarding the development of the Constitutions of the various Colonies (now States), together with a brief history of the Federal movement in Australia, was embodied in this Chapter in issues of the Official Year Book up to No. 22.

2. **Commonwealth Constitution Act.**—The Commonwealth of Australia Constitution Act, 63 and 64 Vict., Chapter 12, namely : "An Act to constitute the Commonwealth of Australia," as amended by the Constitution Alteration (Senate Elections) 1906, the Constitution Alteration (State Debts) 1909, the Constitution Alteration (State Debts) 1928, and the Constitution Alteration (Social Services) 1946, is given *in extenso* hereunder, and the text contains all the alterations of the Constitution which have been made up to and including 31st July, 1951.

THE COMMONWEALTH OF AUSTRALIA CONSTITUTION ACT,
63 & 64 VICT., CHAPTER 12.

An Act to constitute the Commonwealth of Australia. [9th July, 1900.]

WHEREAS the people of New South Wales, Victoria, South Australia, Queensland and Tasmania, humbly relying on the blessing of Almighty God, have agreed to unite in one indissoluble Federal Commonwealth under the Crown of the United Kingdom of Great Britain and Ireland, and under the Constitution hereby established :

And whereas it is expedient to provide for the admission into the Commonwealth of other Australasian Colonies and possessions of the Queen :

Be it therefore enacted by the Queen's Most Excellent Majesty, by and with the advice and consent of the Lords Spiritual and Temporal, and Commons, in this present Parliament assembled, and by the authority of the same, as follows :—

1. This Act may be cited as the Commonwealth of Australia Constitution Act.

2. The provisions of this Act referring to the Queen shall extend to Her Majesty's heirs and successors in the sovereignty of the United Kingdom.

3. It shall be lawful for the Queen, with the advice of the Privy Council, to declare by proclamation that, on and after a day therein appointed, not being later than one year after the passing of this Act, the people of New South Wales, Victoria, South Australia, Queensland, and Tasmania, and also, if Her Majesty is satisfied that the people of Western Australia have agreed thereto, of Western Australia, shall be united in a Federal Commonwealth under the name of the Commonwealth of Australia. But the Queen may, at any time after the proclamation, appoint a Governor-General for the Commonwealth.

4. The Commonwealth shall be established, and the Constitution of the Commonwealth shall take effect, on and after the day so appointed. But the Parliaments of the several colonies may at any time after the passing of this Act make any such laws, to come into operation on the day so appointed, as they might have made if the Constitution had taken effect at the passing of this Act.

5. This Act, and all laws made by the Parliament of the Commonwealth under the Constitution, shall be binding on the courts, judges, and people of every State and of every part of the Commonwealth, notwithstanding anything in the laws of any State ; and the laws of the Commonwealth shall be in force on all British ships, the Queen's ships of war excepted, whose first port of clearance and whose port of destination are in the Commonwealth.

6. "The Commonwealth" shall mean the Commonwealth of Australia as established under this Act.

"The States" shall mean such of the colonies of New South Wales, New Zealand, Queensland, Tasmania, Victoria, Western Australia, and South Australia, including the northern territory of South Australia, as for the time being are parts of the Commonwealth, and such colonies or territories as may be admitted into or established by the Commonwealth as States; and each of such parts of the Commonwealth shall be called "a State."

"Original States" shall mean such States as are parts of the Commonwealth at its establishment.

7. The Federal Council of Australasia Act, 1885, is hereby repealed, but so as not to affect any laws passed by the Federal Council of Australasia and in force at the establishment of the Commonwealth.

Any such law may be repealed as to any State by the Parliament of the Commonwealth, or as to any colony not being a State by the Parliament thereof.

8. After the passing of this Act the Colonial Boundaries Act, 1895, shall not apply to any colony which becomes a State of the Commonwealth; but the Commonwealth shall be taken to be a self-governing colony for the purposes of that Act.

9. The Constitution of the Commonwealth shall be as follows:—

THE CONSTITUTION.

This Constitution is divided as follows:—

Chapter I.—The Parliament:
    Part I.—General:
    Part II.—The Senate:
    Part III.—The House of Representatives:
    Part IV.—Both Houses of the Parliament:
    Part V.—Powers of the Parliament:
Chapter II.—The Executive Government:
Chapter III.—The Judicature:
Chapter IV.—Finance and Trade:
Chapter V.—The States:
Chapter VI.—New States:
Chapter VII.—Miscellaneous:
Chapter VIII.—Alteration of the Constitution.
The Schedule.

CHAPTER I.—THE PARLIAMENT.

PART I.—GENERAL.

1. The legislative power of the Commonwealth shall be vested in a Federal Parliament, which shall consist of the Queen, a Senate, and a House of Representatives, and which is hereinafter called "The Parliament," or "The Parliament of the Commonwealth."

2. A Governor-General appointed by the Queen shall be Her Majesty's representative in the Commonwealth, and shall have and may exercise in the Commonwealth during the Queen's pleasure, but subject to this Constitution, such powers and functions of the Queen as Her Majesty may be pleased to assign to him.

3. There shall be payable to the Queen out of the Consolidated Revenue Fund of the Commonwealth, for the salary of the Governor-General, an annual sum which, until the Parliament otherwise provides, shall be ten thousand pounds.

The salary of a Governor-General shall not be altered during his continuance in office.

4. The provisions of this Constitution relating to the Governor-General extend and apply to the Governor-General for the time being, or such person as the Queen may appoint to administer the Government of the Commonwealth; but no such person shall be entitled to receive any salary from the Commonwealth in respect of any other office during his administration of the Government of the Commonwealth.

5. The Governor-General may appoint such times for holding the sessions of the Parliament as he thinks fit, and may also from time to time, by Proclamation or otherwise, prorogue the Parliament, and may in like manner dissolve the House of Representatives.

After any general election the Parliament shall be summoned to meet not later than thirty days after the day appointed for the return of the writs.

The Parliament shall be summoned to meet not later than six months after the establishment of the Commonwealth.

6. There shall be a session of the Parliament once at least in every year, so that twelve months shall not intervene between the last sitting of the Parliament in one session and its first sitting in the next session.

PART II.—THE SENATE.

7. The Senate shall be composed of senators for each State, directly chosen by the people of the State, voting, until the Parliament otherwise provides, as one electorate.

But until the Parliament of the Commonwealth otherwise provides, the Parliament of the State of Queensland, if that State be an Original State, may make laws dividing the State into divisions and determining the number of senators to be chosen for each division, and in the absence of such provision the State shall be one electorate.

Until the Parliament otherwise provides there shall be six senators for each Original State[*]. The Parliament may make laws increasing or diminishing the number of senators for each State, but so that equal representation of the several Original States shall be maintained and that no Original State shall have less than six senators.

The senators shall be chosen for a term of six years, and the names of the senators chosen for each State shall be certified by the Governor to the Governor-General.

8. The qualification of electors of senators shall be in each State that which is prescribed by this Constitution, or by the Parliament, as the qualification for electors of members of the House of Representatives; but in the choosing of senators each elector shall vote only once.

9. The Parliament of the Commonwealth may make laws prescribing the method of choosing senators, but so that the method shall be uniform for all the States. Subject to any such law, the Parliament of each State may make laws prescribing the method of choosing the senators for that State.

The Parliament of a State may make laws for determining the times and places of elections of senators for the State.

10. Until the Parliament otherwise provides, but subject to this Constitution, the laws in force in each State, for the time being, relating to elections for the more numerous House of the Parliament of the State shall, as nearly as practicable, apply to elections of senators for the State.

11. The Senate may proceed to the despatch of business, notwithstanding the failure of any State to provide for its representation in the Senate.

12. The Governor of any State may cause writs to be issued for elections of senators for the State. In case of the dissolution of the Senate the writs shall be issued within ten days from the proclamation of such dissolution.

13. As soon as may be after the Senate first meets, and after each first meeting of the Senate following a dissolution thereof, the Senate shall divide the senators chosen for each State into two classes, as nearly equal in number as practicable; and the places of the senators of the first class shall become vacant at the expiration of [the third year] *three years*,[†] and the places of those of the second class at the expiration of [the sixth year] *six years*,[†] from the beginning of their term of service; and afterwards the places of senators shall become vacant at the expiration of six years from the beginning of their term of service.

The election to fill vacant places shall be made [in the year at the expiration of which] *within one year before*[†] the places are to become vacant.

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[*] The Parliament has otherwise provided, by means of the Representation Act 1948, that the number of senators shall be ten for each State, from the first meeting of Parliament after the first dissolution of the House of Representatives occurring after the commencement of the Act (18th May, 1948).

[†] As amended by Section 2 of the Constitution Alteration (Senate Elections) 1906. The words in square brackets have been repealed; amendments are shown in italics.

For the purposes of this section the term of service of a senator shall be taken to begin on the first day of [January] *July** following the day of his election, except in the cases of the first election and of the election next after any dissolution of the Senate, when it shall be taken to begin on the first day of [January] *July** preceding the day of his election.

14. Whenever the number of senators for a State is increased or diminished, the Parliament of the Commonwealth may make such provision for the vacating of the places of senators for the State as it deems necessary to maintain regularity in the rotation.

15. If the place of a senator becomes vacant before the expiration of his term of service, the Houses of Parliament of the State for which he was chosen shall, sitting and voting together, choose a person to hold the place until the expiration of the term, or until the election of a successor as hereinafter provided, whichever first happens. But if the Houses of Parliament of the State are not in session at the time when the vacancy is notified, the Governor of the State, with the advice of the Executive Council thereof, may appoint a person to hold the place until the expiration of fourteen days after the beginning of the next session of the Parliament of the State, or until the election of a successor, whichever first happens.

At the next general election of members of the House of Representatives, or at the next election of senators for the State, whichever first happens, a successor shall, if the term has not then expired, be chosen to hold the place from the date of his election until the expiration of the term.

The name of any senator so chosen or appointed shall be certified by the Governor of the State to the Governor-General.

16. The qualifications of a senator shall be the same as those of a member of the House of Representatives.

17. The Senate shall, before proceeding to the despatch of any other business, choose a senator to be the President of the Senate; and as often as the office of President becomes vacant the Senate shall again choose a senator to be the President.

The President shall cease to hold his office if he ceases to be a senator. He may be removed from office by a vote of the Senate, or he may resign his office or his seat by writing addressed to the Governor-General.

18. Before or during any absence of the President, the Senate may choose a senator to perform his duties in his absence.

19. A senator may, by writing addressed to the President, or to the Governor-General if there is no President or if the President is absent from the Commonwealth, resign his place, which thereupon shall become vacant.

20. The place of a senator shall become vacant if for two consecutive months of any session of the Parliament he, without the permission of the Senate, fails to attend the Senate.

21. Whenever a vacancy happens in the Senate, the President, or if there is no President or if the President is absent from the Commonwealth, the Governor-General, shall notify the same to the Governor of the State in the representation of which the vacancy has happened.

22. Until the Parliament otherwise provides, the presence of at least one-third of the whole number of the senators shall be necessary to constitute a meeting of the Senate for the exercise of its powers.

23. Questions arising in the Senate shall be determined by a majority of votes, and each senator shall have one vote. The President shall in all cases be entitled to a vote; and when the votes are equal the question shall pass in the negative.

PART III.—THE HOUSE OF REPRESENTATIVES.

24. The House of Representatives shall be composed of members directly chosen by the people of the Commonwealth, and the number of such members shall be, as nearly as practicable, twice the number of the senators.

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* As amended by Section 2 of the Constitution Alteration (Senate Elections) 1906. The words in square brackets have been repealed; amendments are shown in Italics.

The number of members chosen in the several States shall be in proportion to the respective numbers of their people, and shall, until the Parliament otherwise provides, be determined, whenever necessary, in the following manner :—

(i) A quota shall be ascertained by dividing the number of the people of the Commonwealth, as shown by the latest statistics of the Commonwealth, by twice the number of the senators ;

(ii) The number of members to be chosen in each State shall be determined by dividing the number of the people of the State, as shown by the latest statistics of the Commonwealth, by the quota ; and if on such division there is a remainder greater than one-half of the quota, one more member shall be chosen in the State.

But notwithstanding anything in this section five members at least shall be chosen in each Original State.

25. For the purposes of the last section, if by the law of any State all persons of any race are disqualified from voting at elections for the more numerous House of the Parliament of the State, then, in reckoning the number of the people of the State or of the Commonwealth, persons of that race resident in that State shall not be counted.

26. Notwithstanding anything in section twenty-four, the number of members to be chosen in each State at the first election shall be as follows :—

New South Wales ..	23	South Australia ..	6
Victoria	20	Tasmania	5
Queensland	8		

Provided that if Western Australia is an Original State, the numbers shall be as follows :—

New South Wales ..	26	South Australia ..	7
Victoria	23	Western Australia ..	5
Queensland	9	Tasmania	5

27. Subject to this Constitution, the Parliament may make laws for increasing or diminishing the number of the members of the House of Representatives.

28. Every House of Representatives shall continue for three years from the first meeting of the House, and no longer, but may be sooner dissolved by the Governor-General.

29. Until the Parliament of the Commonwealth otherwise provides, the Parliament of any State may make laws for determining the divisions in each State for which members of the House of Representatives may be chosen, and the number of members to be chosen for each division. A division shall not be formed out of parts of different States.

In the absence of other provision, each State shall be one electorate.

30. Until the Parliament otherwise provides, the qualification of electors of members of the House of Representatives shall be in each State that which is prescribed by the law of the State as the qualification of electors of the more numerous House of Parliament of the State ; but in the choosing of members each elector shall vote only once.*

31. Until the Parliament otherwise provides, but subject to this Constitution, the laws in force in each State for the time being relating to elections for the more numerous House of the Parliament of the State shall, as nearly as practicable, apply to elections in the State of members of the House of Representatives.

32. The Governor-General in Council may cause writs to be issued for general elections of members of the House of Representatives.

After the first general election, the writs shall be issued within ten days from the expiry of a House of Representatives or from the proclamation of a dissolution thereof.

33. Whenever a vacancy happens in the House of Representatives, the Speaker shall issue his writ for the election of a new member, or if there is no Speaker or if he is absent from the Commonwealth the Governor-General in Council may issue the writ.

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* The Parliament has otherwise provided, by means of the Commonwealth Electoral Act 1918-1949, Section 39 (repealing an earlier provision made by the Commonwealth Franchise Act 1902). For present qualifications see Chapter III.—General Government.

34. Until the Parliament otherwise provides, the qualifications of a member of the House of Representatives shall be as follows :—

(i) He must be of the full age of twenty-one years, and must be an elector entitled to vote at the election of members of the House of Representatives, or a person qualified to become such elector, and must have been for three years at the least a resident within the limits of the Commonwealth as existing at the time when he is chosen :

(ii) He must be a subject of the Queen, either natural-born or for at least five years naturalized under a law of the United Kingdom, or of a Colony which has become or becomes a State, or of the Commonwealth, or of a State.*

35. The House of Representatives shall, before proceeding to the despatch of any other business, choose a member to be the Speaker of the House, and as often as the office of Speaker becomes vacant the House shall again choose a member to be the Speaker.

The Speaker shall cease to hold his office if he ceases to be a member. He may be removed from office by a vote of the House, or he may resign his office or his seat by writing addressed to the Governor-General.

36. Before or during any absence of the Speaker, the House of Representatives may choose a member to perform his duties in his absence.

37. A member may by writing addressed to the Speaker, or to the Governor-General if there is no Speaker or if the Speaker is absent from the Commonwealth, resign his place, which thereupon shall become vacant.

38. The place of a member shall become vacant if for two consecutive months of any session of the Parliament he, without the permission of the House, fails to attend the House.

39. Until the Parliament otherwise provides, the presence of at least one-third of the whole number of the members of the House of Representatives shall be necessary to constitute a meeting of the House for the exercise of its powers.

40. Questions arising in the House of Representatives shall be determined by a majority of votes other than that of the Speaker. The Speaker shall not vote unless the numbers are equal, and then he shall have a casting vote.

PART IV.—BOTH HOUSES OF THE PARLIAMENT.

41. No adult person who has or acquires a right to vote at elections for the more numerous House of the Parliament of a State shall, while the right continues, be prevented by any law of the Commonwealth from voting at elections for either House of the Parliament of the Commonwealth.

42. Every senator and every member of the House of Representatives shall before taking his seat make and subscribe before the Governor-General, or some person authorized by him, an oath or affirmation of allegiance in the form set forth in the schedule to this Constitution.

43. A member of either House of the Parliament shall be incapable of being chosen or of sitting as a member of the other House.

44. Any person who—

(i) Is under any acknowledgment of allegiance, obedience, or adherence to a foreign power, or is a subject or a citizen or entitled to the rights or privileges of a subject or a citizen of a foreign power : or

(ii) Is attainted of treason, or has been convicted and is under sentence, or subject to be sentenced, for any offence punishable under the law of the Commonwealth or of a State by imprisonment for one year or longer : or

(iii) Is an undischarged bankrupt or insolvent : or

(iv) Holds any office of profit under the Crown, or any pension payable during the pleasure of the Crown out of any of the revenues of the Commonwealth : or

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* The Parliament has otherwise provided, by means of the Commonwealth Electoral Act 1918–1949, Section 69. For present qualifications *see* Chapter III.—General Government.

(v) Has any direct or indirect pecuniary interest in any agreement with the Public Service of the Commonwealth otherwise than as a member and in common with the other members of an incorporated company consisting of more than twenty-five persons :

shall be incapable of being chosen or of sitting as a senator or a member of the House of Representatives.

But sub-section iv. does not apply to the office of any of the Queen's Ministers of State for the Commonwealth, or of any of the Queen's Ministers for a State, or to the receipt of pay, half-pay, or a pension by any person as an officer or member of the Queen's navy or army, or to the receipt of pay as an officer or member of the naval or military forces of the Commonwealth by any person whose services are not wholly employed by the Commonwealth.

45. If a senator or member of the House of Representatives—

(i) Becomes subject to any of the disabilities mentioned in the last preceding section : or

(ii) Takes the benefit, whether by assignment, composition, or otherwise, of any law relating to bankrupt or insolvent debtors : or

(iii) Directly or indirectly takes or agrees to take any fee or honorarium for services rendered to the Commonwealth, or for services rendered in the Parliament to any person or State :

his place shall thereupon become vacant.

46. Until the Parliament otherwise provides, any person declared by this Constitution to be incapable of sitting as a senator or as a member of the House of Representatives shall, for every day on which he so sits, be liable to pay the sum of one hundred pounds to any person who sues for it in any court of competent jurisdiction.

47. Until the Parliament otherwise provides, any question respecting the qualification of a senator or of a member of the House of Representatives, or respecting a vacancy in either House of the Parliament, and any question of a disputed election to either House, shall be determined by the House in which the question arises.

48. Until the Parliament otherwise provides, each senator and each member of the House of Representatives shall receive an allowance of four hundred pounds a year, to be reckoned from the day on which he takes his seat.*

49. The powers, privileges, and immunities of the Senate and of the House of Representatives, and of the members and the committees of each House, shall be such as are declared by the Parliament, and until declared shall be those of the Commons House of Parliament of the United Kingdom, and of its members and committees, at the establishment of the Commonwealth.

50. Each House of the Parliament may make rules and orders with respect to—

(i) The mode in which its powers, privileges, and immunities may be exercised and upheld :

(ii) The order and conduct of its business and proceedings either separately or jointly with the other House.

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* The Parliamentary allowance was increased to £600 per annum in 1907 (except in the cases of Ministers, the Presiding Officers of the two Houses, and the Chairmen of Committees, whose allowances remained at £400, in addition to the emoluments of office), and to £1,000 per annum in 1920 (Ministers, etc., £800). Under financial emergency legislation Parliamentary salaries and allowances were reduced generally, the lowest level reached in respect of the Parliamentary allowance being £750 per annum in 1932. Subsequently there was a gradual restoration to former levels, the allowance reaching £1,000 per annum again in 1938 when, also, the proviso for the reduced allowance to Ministers, etc. was removed. In 1947 the Parliamentary allowance was increased to £1,500 per annum. In 1920 additional allowances of £200 and £400 per annum, respectively, were granted to the Leaders of the Opposition in the Senate and the House of Representatives, and in 1947 they were increased to £300 and £600 respectively. In 1947, also, an additional allowance of £400 per annum was granted to the Leader in the House of Representatives (other than the Leader of the Opposition) of a recognized political party which has not less than ten members in the House of Representatives, and of which no member is a Minister.

PART V.—POWERS OF THE PARLIAMENT.*

51. The Parliament shall, subject to this Constitution, have power to make laws for the peace, order, and good government of the Commonwealth with respect to—

(i) Trade and commerce with other countries, and among the States :
(ii) Taxation ; but so as not to discriminate between States or parts of States :
(iii) Bounties on the production or export of goods, but so that such bounties shall be uniform throughout the Commonwealth :
(iv) Borrowing money on the public credit of the Commonwealth :
(v) Postal, telegraphic, telephonic, and other like services :
(vi) The naval and military defence of the Commonwealth and of the several States, and the control of the forces to execute and maintain the laws of the Commonwealth :
(vii) Lighthouses, lightships, beacons and buoys :
(viii) Astronomical and meteorological observations :
(ix) Quarantine :
(x) Fisheries in Australian waters beyond territorial limits :
(xi) Census and statistics :
(xii) Currency, coinage, and legal tender :
(xiii) Banking, other than State banking ; also State banking extending beyond the limits of the State concerned, the incorporation of banks, and the issue of paper money :
(xiv) Insurance, other than State insurance ; also State insurance extending beyond the limits of the State concerned :
(xv) Weights and measures :
(xvi) Bills of exchange and promissory notes :
(xvii) Bankruptcy and insolvency :
(xviii) Copyrights, patents of inventions and designs, and trade marks :
(xix) Naturalization and aliens :
(xx) Foreign corporations, and trading or financial corporations formed within the limits of the Commonwealth :
(xxi) Marriage :
(xxii) Divorce and matrimonial causes ; and in relation thereto, parental rights, and the custody and guardianship of infants :
(xxiii) Invalid and old-age pensions :
(xxiiiA) †*The provision of maternity allowances, widows' pensions, child endowment, unemployment, pharmaceutical, sickness and hospital benefits, medical and dental services (but not so as to authorize any form of civil conscription), benefits to students and family allowances :*
(xxiv) The service and execution throughout the Commonwealth of the civil and criminal process and the judgments of the courts of the States :
(xxv) The recognition throughout the Commonwealth of the laws, the public Acts and records, and the judicial proceedings of the States :
(xxvi) The people of any race, other than the aboriginal race in any State, for whom it is deemed necessary to make special laws :
(xxvii) Immigration and emigration :
(xxviii) The influx of criminals :
(xxix) External affairs :
(xxx) The relations of the Commonwealth with the islands of the Pacific :
(xxxi) The acquisition of property on just terms from any State or person for any purpose in respect of which the Parliament has power to make laws :
(xxxii) The control of railways with respect to transport for the naval and military purposes of the Commonwealth :
(xxxiii) The acquisition, with the consent of a State, of any railways of the State on terms arranged between the Commonwealth and the State :

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* Particulars of proposed laws which were submitted to referenda are referred to in Chapter III., General Government.

† Under Section 2 of the Constitution Alteration (Social Services) 1946, the Constitution was amended by the insertion of this paragraph.

(xxxiv) Railway construction and extension in any State with the consent of that State:

(xxxv) Conciliation and arbitration for the prevention and settlement of industrial disputes extending beyond the limits of any one State:

(xxxvi) Matters in respect of which this Constitution makes provision until the Parliament otherwise provides:

(xxxvii) Matters referred to the Parliament of the Commonwealth by the Parliament or Parliaments of any State or States, but so that the law shall extend only to States by whose Parliaments the matter is referred, or which afterwards adopt the law:

(xxxviii) The exercise within the Commonwealth, at the request or with the concurrence of the Parliaments of all the States directly concerned, of any power which can at the establishment of this Constitution be exercised only by the Parliament of the United Kingdom or by the Federal Council of Australasia:

(xxxix) Matters incidental to the execution of any power vested by this Constitution in the Parliament or in either House thereof, or in the Government of the Commonwealth, or in the Federal Judicature, or in any department or officer of the Commonwealth.

52. The Parliament shall, subject to this Constitution, have exclusive power to make laws for the peace, order, and good government of the Commonwealth with respect to—

(i) The seat of Government of the Commonwealth, and all places acquired by the Commonwealth for public purposes:

(ii) Matters relating to any department of the public service the control of which is by this Constitution transferred to the Executive Government of the Commonwealth:

(iii) Other matters declared by this Constitution to be within the exclusive power of the Parliament.

53. Proposed laws appropriating revenue or moneys, or imposing taxation, shall not originate in the Senate. But a proposed law shall not be taken to appropriate revenue or moneys, or to impose taxation, by reason only of its containing provisions for the imposition or appropriation of fines or other pecuniary penalties, or for the demand or payment or appropriation of fees for licences, or fees for services under the proposed law.

The Senate may not amend proposed laws imposing taxation, or proposed laws appropriating revenue or moneys for the ordinary annual services of the Government.

The Senate may not amend any proposed laws so as to increase any proposed charge or burden on the people.

The Senate may at any stage return to the House of Representatives any proposed law which the Senate may not amend, requesting, by message, the omission or amendment of any items or provisions therein. And the House of Representatives may, if it thinks fit, make any of such omissions or amendments, with or without modifications.

Except as provided in this section, the Senate shall have equal power with the House of Representatives in respect of all proposed laws.

54. The proposed law which appropriates revenue or moneys for the ordinary annual services of the Government shall deal only with such appropriation.

55. Laws imposing taxation shall deal only with the imposition of taxation, and any provision therein dealing with any other matter shall be of no effect.

Laws imposing taxation, except laws imposing duties of customs or of excise, shall deal with one subject of taxation only; but laws imposing duties of customs shall deal with duties of customs only, and laws imposing duties of excise shall deal with duties of excise only.

56. A vote, resolution, or proposed law for the appropriation of revenue or moneys shall not be passed unless the purpose of the appropriation has in the same session been recommended by message of the Governor-General to the House in which the proposal originated.

57. If the House of Representatives passes any proposed law, and the Senate rejects or fails to pass it, or passes it with amendments to which the House of Representatives will not agree, and if after an interval of three months the House of Representatives, in the same or the next session, again passes the proposed law with or without any amendments which have been made, suggested, or agreed to by the Senate, and the Senate rejects or fails to pass it, or passes it with amendments to which the House of Representatives will not agree, the Governor-General may dissolve the Senate and the House of Representatives simultaneously. But such dissolution shall not take place within six months before the date of the expiry of the House of Representatives by effluxion of time.

If after such dissolution the House of Representatives again passes the proposed law, with or without any amendments which have been made, suggested, or agreed to by the Senate, and the Senate rejects or fails to pass it, or passes it with amendments to which the House of Representatives will not agree, the Governor-General may convene a joint sitting of the members of the Senate and of the House of Representatives.

The members present at the joint sitting may deliberate and shall vote together upon the proposed law as last proposed by the House of Representatives, and upon amendments, if any, which have been made therein by one House and not agreed to by the other, and any such amendments which are affirmed by an absolute majority of the total number of the members of the Senate and House of Representatives shall be taken to have been carried, and if the proposed law, with the amendments, if any, so carried is affirmed by an absolute majority of the total number of members of the Senate and House of Representatives, it shall be taken to have been duly passed by both Houses of the Parliament, and shall be presented to the Governor-General for the Queen's assent.

58. When a proposed law passed by both Houses of the Parliament is presented to the Governor-General for the Queen's assent, he shall declare, according to his discretion, but subject to this Constitution, that he assents in the Queen's name, or that he withholds assent, or that he reserves the law for the Queen's pleasure.

The Governor-General may return to the House in which it originated any proposed law so presented to him, and may transmit therewith any amendments which he may recommend, and the Houses may deal with the recommendation.

59. The Queen may disallow any law within one year from the Governor-General's assent, and such disallowance on being made known by the Governor-General by speech or message to each of the Houses of the Parliament, or by Proclamation, shall annul the law from the day when the disallowance is so made known.

60. A proposed law reserved for the Queen's pleasure shall not have any force unless and until within two years from the day on which it was presented to the Governor-General for the Queen's assent the Governor-General makes known, by speech or message to each of the Houses of the Parliament, or by Proclamation, that it has received the Queen's assent.

CHAPTER II.—THE EXECUTIVE GOVERNMENT.

61. The executive power of the Commonwealth is vested in the Queen and is exercisable by the Governor-General as the Queen's representative, and extends to the execution and maintenance of this Constitution, and of the laws of the Commonwealth.

62. There shall be a Federal Executive Council to advise the Governor-General in the government of the Commonwealth, and the members of the Council shall be chosen and summoned by the Governor-General and sworn as Executive Councillors, and shall hold office during his pleasure.

63. The provisions of this Constitution referring to the Governor-General in Council shall be construed as referring to the Governor-General acting with the advice of the Federal Executive Council.

64. The Governor-General may appoint officers to administer such departments of State of the Commonwealth as the Governor-General in Council may establish.

Such officers shall hold office during the pleasure of the Governor-General. They shall be members of the Federal Executive Council, and shall be the Queen's Ministers of State for the Commonwealth.

After the first general election no Minister of State shall hold office for a longer period than three months unless he is or becomes a senator or a member of the House of Representatives.

65. Until the Parliament otherwise provides, the Ministers of State shall not exceed seven in number, and shall hold such offices as the Parliament prescribes, or, in the absence of provision, as the Governor-General directs.*

66. There shall be payable to the Queen out of the Consolidated Revenue Fund of the Commonwealth, for the salaries of the Ministers of State, an annual sum which until the Parliament otherwise provides, shall not exceed twelve thousand pounds a year.*

67. Until the Parliament otherwise provides, the appointment and removal of all other officers of the Executive Government of the Commonwealth shall be vested in the Governor-General in Council, unless the appointment is delegated by the Governor-General in Council or by a law of the Commonwealth to some other authority.

68. The command in chief of the naval and military forces of the Commonwealth is vested in the Governor-General as the Queen's representative.

69. On a date or dates to be proclaimed by the Governor-General after the establishment of the Commonwealth the following departments of the public service in each State shall become transferred to the Commonwealth :—

Posts, telegraphs, and telephones :	Lighthouses, lightships, beacons, and buoys :
Naval and military defence :	Quarantine.

But the departments of customs and of excise in each State shall become transferred to the Commonwealth on its establishment.

70. In respect of matters which, under this Constitution, pass to the Executive Government of the Commonwealth, all powers and functions which at the establishment of the Commonwealth are vested in the Governor of a Colony, or in the Governor of a Colony with the advice of his Executive Council, or in any authority of a Colony, shall vest in the Governor-General, or in the Governor-General in Council, or in the authority exercising similar powers under the Commonwealth, as the case requires.

CHAPTER III.—THE JUDICATURE.

71. The judicial power of the Commonwealth shall be vested in a Federal Supreme Court, to be called the High Court of Australia, and in such other federal courts as the Parliament creates, and in such other courts as it invests with federal jurisdiction. The High Court shall consist of a Chief Justice, and so many other Justices, not less than two, as the Parliament prescribes.†

72. The Justices of the High Court and of the other Courts created by the Parliament—

(i) Shall be appointed by the Governor-General in Council :

(ii) Shall not be removed except by the Governor-General in Council, on an address from both Houses of the Parliament in the same session, praying for such removal on the ground of proved misbehaviour or incapacity :

(iii) Shall receive such remuneration as the Parliament may fix; but the remuneration shall not be diminished during their continuance in office.†

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* The Ministers of State were increased to eight in 1915, to nine in 1917, to ten in 1935, to eleven in 1938, and to nineteen in 1941, a special war-time provision during the continuance in operation of the National Security Act which was extended in 1946 on the expiry of that Act. In 1951 the number was increased to twenty. The annual appropriation for Ministers' salaries received in addition to their allowances as Members (*see* page 14), was increased to £13,650 in 1915 and to £15,300 in 1917. Under financial emergency legislation in addition to the reductions in Members' allowances the appropriation for Ministers was also reduced, in 1932 reaching the level of £10,710. The reductions were removed gradually, and finally in 1938, when the appropriation was £16,950. At the same time, an additional allowance of £1,500 per annum was granted to the Prime Minister, and the proviso for the reduced Parliamentary allowance to Ministers was removed. In 1941 the annual appropriation for Ministers was increased, as a war-time provision, to £21,250. This was extended in 1946. In 1947 the appropriation was increased to £27,650, and in 1951 to £29,000.

† The Judiciary Act 1903 provided for a Chief Justice and two other Justices. Subsequent amendments to the Act increased the number of other Justices to four and later six, and then reduced it to five. In 1946 the number was again increased to six. The Judiciary Act 1903 also provided for the payment of a salary of £3,500 per annum to the Chief Justice and of £3,000 per annum to each other Justice. In 1947 these salaries were increased respectively to £4,500 and £4,000 per annum and in 1950 to £5,000 and £4,500 per annum.

73. The High Court shall have jurisdiction, with such exceptions and subject to such regulations as the Parliament prescribes, to hear and determine appeals from all judgments, decrees, orders, and sentences—

(i) Of any Justice or Justices exercising the original jurisdiction of the High Court:
(ii) Of any other federal court, or court exercising federal jurisdiction; or of the Supreme Court of any State, or of any other court of any State from which at the establishment of the Commonwealth an appeal lies to the Queen in Council:
(iii) Of the Inter-State Commission, but as to questions of law only:

and the judgment of the High Court in all such cases shall be final and conclusive.

But no exception or regulation prescribed by the Parliament shall prevent the High Court from hearing and determining any appeal from the Supreme Court of a State in any matter in which at the establishment of the Commonwealth an appeal lies from such Supreme Court to the Queen in Council.

Until the Parliament otherwise provides, the conditions of and restrictions on appeals to the Queen in Council from the Supreme Courts of the several States shall be applicable to appeals from them to the High Court.

74. No appeal shall be permitted to the Queen in Council from a decision of the High Court upon any question, howsoever arising, as to the limits *inter se* of the Constitutional powers of the Commonwealth and those of any State or States, or as to the limits *inter se* of the Constitutional powers of any two or more States, unless the High Court shall certify that the question is one which ought to be determined by Her Majesty in Council.

The High Court may so certify if satisfied that for any special reason the certificate should be granted, and thereupon an appeal shall lie to Her Majesty in Council on the question without further leave.

Except as provided in this section, this Constitution shall not impair any right which the Queen may be pleased to exercise by virtue of Her Royal prerogative to grant special leave of appeal from the High Court to Her Majesty in Council. The Parliament may make laws limiting the matters in which such leave may be asked, but proposed laws containing any such limitation shall be reserved by the Governor-General for Her Majesty's pleasure.

75. In all matters—

(i) Arising under any treaty:
(ii) Affecting consuls or other representatives of other countries:
(iii) In which the Commonwealth, or a person suing or being sued on behalf of the Commonwealth, is a party:
(iv) Between States, or between residents of different States, or between a State and a resident of another State:
(v) In which a writ of Mandamus or prohibition or an injunction is sought against an officer of the Commonwealth:

the High Court shall have original jurisdiction.

76. The Parliament may make laws conferring original jurisdiction on the High Court in any matter—

(i) Arising under this Constitution, or involving its interpretation:
(ii) Arising under any laws made by the Parliament:
(iii) Of Admiralty and maritime jurisdiction:
(iv) Relating to the same subject-matter claimed under the laws of different States.

77. With respect to any of the matters mentioned in the last two sections the Parliament may make laws—

(i) Defining the jurisdiction of any federal court other than the High Court:
(ii) Defining the extent to which the jurisdiction of any federal court shall be exclusive of that which belongs to or is invested in the courts of the States:
(iii) Investing any court of a State with federal jurisdiction.

78. The Parliament may make laws conferring rights to proceed against the Commonwealth or a State in respect of matters within the limits of the judicial power.

79. The federal jurisdiction of any court may be exercised by such number of judges as the Parliament prescribes.

80. The trial on indictment of any offence against any law of the Commonwealth shall be by jury, and every such trial shall be held in the State where the offence was committed, and if the offence was not committed within any State the trial shall be held at such place or places as the Parliament prescribes.

CHAPTER IV.—FINANCE AND TRADE.

81. All revenues or moneys raised or received by the Executive Government of the Commonwealth shall form one Consolidated Revenue Fund, to be appropriated for the purposes of the Commonwealth in the manner and subject to the charges and liabilities imposed by this Constitution.

82. The costs, charges, and expenses incident to the collection, management, and receipt of the Consolidated Revenue Fund shall form the first charge thereon; and the revenue of the Commonwealth shall in the first instance be applied to the payment of the expenditure of the Commonwealth.

83. No money shall be drawn from the Treasury of the Commonwealth except under appropriation made by law.

But until the expiration of one month after the first meeting of the Parliament the Governor-General in Council may draw from the Treasury and expend such moneys as may be necessary for the maintenance of any department transferred to the Commonwealth and for the holding of the first elections for the Parliament.

84. When any department of the public service of a State becomes transferred to the Commonwealth, all officers of the department shall become subject to the control of the Executive Government of the Commonwealth.

Any such officer who is not retained in the service of the Commonwealth shall, unless he is appointed to some other office of equal emolument in the public service of the State, be entitled to receive from the State any pension, gratuity, or other compensation, payable under the law of the State on the abolition of his office.

Any such officer who is retained in the service of the Commonwealth shall preserve all his existing and accruing rights, and shall be entitled to retire from office at the time, and on the pension or retiring allowance, which would be permitted by the law of the State if his service with the Commonwealth were a continuation of his service with the State. Such pension or retiring allowance shall be paid to him by the Commonwealth; but the State shall pay to the Commonwealth a part thereof, to be calculated on the proportion which his term of service with the State bears to his whole term of service, and for the purpose of the calculation his salary shall be taken to be that paid to him by the State at the time of the transfer.

Any officer who is, at the establishment of the Commonwealth, in the public service of a State, and who is, by consent of the Governor of the State with the advice of the Executive Council thereof, transferred to the public service of the Commonwealth, shall have the same rights as if he had been an officer of a department transferred to the Commonwealth and were retained in the service of the Commonwealth.

85. When any department of the public service of a State is transferred to the Commonwealth—

- (i) All property of the State of any kind, used exclusively in connexion with the department, shall become vested in the Commonwealth; but, in the case of the departments controlling customs and excise and bounties, for such time only as the Governor-General in Council may declare to be necessary:
- (ii) The Commonwealth may acquire any property of the State, of any kind used, but not exclusively used in connexion with the department; the value thereof shall, if no agreement can be made, be ascertained in, as nearly as

may be, the manner in which the value of land, or of an interest in land, taken by the State for public purposes is ascertained under the law of the State in force at the establishment of the Commonwealth :

(iii) The Commonwealth shall compensate the State for the value of any property passing to the Commonwealth under this section ; if no agreement can be made as to the mode of compensation, it shall be determined under laws to be made by the Parliament :

(iv) The Commonwealth shall, at the date of the transfer, assume the current obligations of the State in respect of the department transferred.

86. On the establishment of the Commonwealth, the collection and control of duties of customs and of excise, and the control of the payment of bounties, shall pass to the Executive Government of the Commonwealth.

87. During a period of ten years after the establishment of the Commonwealth and thereafter until the Parliament otherwise provides, of the net revenue of the Commonwealth from duties of customs and of excise not more than one-fourth shall be applied annually by the Commonwealth towards its expenditure.

The balance shall, in accordance with this Constitution, be paid to the several States, or applied towards the payment of interest on debts of the several States taken over by the Commonwealth.

88. Uniform duties of customs shall be imposed within two years after the establishment of the Commonwealth.

89. Until the imposition of uniform duties of customs—

(i) The Commonwealth shall credit to each State the revenues collected therein by the Commonwealth.

(ii) The Commonwealth shall debit to each State—

(*a*) The expenditure therein of the Commonwealth incurred solely for the maintenance or continuance, as at the time of transfer, of any department transferred from the State to the Commonwealth ;

(*b*) The proportion of the State, according to the number of its people, in the other expenditure of the Commonwealth.

(iii) The Commonwealth shall pay to each State month by month the balance (if any) in favour of the State.

90. On the imposition of uniform duties of customs the power of the Parliament to impose duties of customs and of excise, and to grant bounties on the production or export of goods, shall become exclusive.

On the imposition of uniform duties of customs all laws of the several States imposing duties of customs or of excise, or offering bounties on the production or export of goods, shall cease to have effect, but any grant of or agreement for any such bounty lawfully made by or under the authority of the Government of any State shall be taken to be good if made before the thirtieth day of June, one thousand eight hundred and ninety-eight, and not otherwise.

91. Nothing in this Constitution prohibits a State from granting any aid to or bounty on mining for gold, silver, or other metals, nor from granting, with the consent of both Houses of the Parliament of the Commonwealth expressed by resolution, any aid to or bounty on the production or export of goods.

92. On the imposition of uniform duties of customs, trade, commerce, and intercourse among the States, whether by means of internal carriage or ocean navigation, shall be absolutely free.

But notwithstanding anything in this Constitution, goods imported before the imposition of uniform duties of customs into any State, or into any Colony which, whilst the goods remain therein, becomes a State, shall, on thence passing into another State within two years after the imposition of such duties, be liable to any duty chargeable on the importation of such goods into the Commonwealth, less any duty paid in respect of the goods on their importation.

93. During the first five years after the imposition of uniform duties of customs, and thereafter until the Parliament otherwise provides—

- (i) The duties of customs chargeable on goods imported into a State and afterwards passing into another State for consumption, and the duties of excise paid on goods produced or manufactured in a State and afterwards passing into another State for consumption, shall be taken to have been collected not in the former but in the latter State:
- (ii) Subject to the last sub-section, the Commonwealth shall credit revenue, debit expenditure, and pay balances to the several States as prescribed for the period preceding the imposition of uniform duties of customs.

94. After five years from the imposition of uniform duties of customs, the Parliament may provide, on such basis as it deems fair, for the monthly payment to the several States of all surplus revenue of the Commonwealth.

95. Notwithstanding anything in this Constitution, the Parliament of the State of Western Australia, if that State be an Original State, may, during the first five years after the imposition of uniform duties of customs, impose duties of customs on goods passing into that State and not originally imported from beyond the limits of the Commonwealth: and such duties shall be collected by the Commonwealth.

But any duty so imposed on any goods shall not exceed during the first of such years the duty chargeable on the goods under the law of Western Australia in force at the imposition of uniform duties, and shall not exceed during the second, third, fourth, and fifth of such years respectively, four-fifths, three-fifths, two-fifths, and one-fifth of such latter duty, and all duties imposed under this section shall cease at the expiration of the fifth year after the imposition of uniform duties.

If at any time during the five years the duty on any goods under this section is higher than the duty imposed by the Commonwealth on the importation of the like goods, then such higher duty shall be collected on the goods when imported into Western Australia from beyond the limits of the Commonwealth.

96. During a period of ten years after the establishment of the Commonwealth and thereafter until the Parliament otherwise provides, the Parliament may grant financial assistance to any State on such terms and conditions as the Parliament thinks fit.

97. Until the Parliament otherwise provides, the laws in force in any Colony which has become or becomes a State with respect to the receipt of revenue and the expenditure of money on account of the Government of the Colony, and the review and audit of such receipt and expenditure, shall apply to the receipt of revenue and the expenditure of money on account of the Commonwealth in the State in the same manner as if the Commonwealth, or the Government or an officer of the Commonwealth, were mentioned whenever the Colony, or the Government or an officer of the Colony, is mentioned.

98. The power of the Parliament to make laws with respect to trade and commerce extends to navigation and shipping, and to railways the property of any State.

99. The Commonwealth shall not, by any law or regulation of trade, commerce, or revenue, give preference to one State or any part thereof over another State or any part thereof.

100. The Commonwealth shall not, by any law or regulation of trade or commerce, abridge the right of a State or of the residents therein to the reasonable use of the waters of rivers for conservation or irrigation.

101. There shall be an Inter-State Commission, with such powers of adjudication and administration as the Parliament deems necessary for the execution and maintenance, within the Commonwealth, of the provisions of this Constitution relating to trade and commerce, and of all laws made thereunder.

102. The Parliament may by any law with respect to trade or commerce forbid, as to railways, any preference or discrimination by any State, or by any authority constituted under a State, if such preference or discrimination is undue and unreasonable, or unjust to any State; due regard being had to the financial responsibilities incurred by any State in connexion with the construction and maintenance of its railways. But

no preference or discrimination shall, within the meaning of this section, be taken to be undue and unreasonable, or unjust to any State, unless so adjudged by the Inter-State Commission.

103. The members of the Inter-State Commission—

(i) Shall be appointed by the Governor-General in Council:

(ii) Shall hold office for seven years, but may be removed within that time by the Governor-General in Council, on an address from both Houses of the Parliament in the same session praying for such removal on the ground of proved misbehaviour or incapacity:

(iii) Shall receive such remuneration as the Parliament may fix; but such remuneration shall not be diminished during their continuance in office.

104. Nothing in this Constitution shall render unlawful any rate for the carriage of goods upon a railway, the property of a State, if the rate is deemed by the Inter-State Commission to be necessary for the development of the territory of the State, and if the rate applies equally to goods within the State and to goods passing into the State from other States.

105. The Parliament may take over from the States their public debts [as existing at the establishment of the Commonwealth],* or a proportion thereof according to the respective numbers of their people as shown by the latest statistics of the Commonwealth, and may convert, renew, or consolidate such debts, or any part thereof; and the State shall indemnify the Commonwealth in respect of the debts taken over, and thereafter the interest payable in respect of the debts shall be deducted and retained from the portions of the surplus revenue of the Commonwealth payable to the several States, or if such surplus is insufficient, or if there is no surplus, then the deficiency or the whole amount shall be paid by the several States.

105A.† (i) *The Commonwealth may make agreements with the States with respect to the public debts of the States, including—*

(a) the taking over of such debts by the Commonwealth;

(b) the management of such debts;

(c) the payment of interest and the provision and management of sinking funds in respect of such debts;

(d) the consolidation, renewal, conversion, and redemption of such debts;

(e) the indemnification of the Commonwealth by the States in respect of debts taken over by the Commonwealth; and

(f) the borrowing of money by the States or by the Commonwealth, or by the Commonwealth for the States.

(ii) *The Parliament may make laws for validating any such agreement made before the commencement of this section.*

(iii) *The Parliament may make laws for the carrying out by the parties thereto of any such agreement.*

(iv) *Any such agreement may be varied or rescinded by the parties thereto.*

(v) *Every such agreement and any such variation thereof shall be binding upon the Commonwealth and the States parties thereto notwithstanding anything contained in this Constitution or the Constitution of the several States or in any law of the Parliament of the Commonwealth or of any State.*

(vi) *The powers conferred by this section shall not be construed as being limited in any way by the provisions of section one hundred and five of this Constitution.*

CHAPTER V.—THE STATES.

106. The Constitution of each State of the Commonwealth shall, subject to this Constitution, continue as at the establishment of the Commonwealth, or as at the admission or establishment of the State, as the case may be, until altered in accordance with the Constitution of the State.

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* Under Section 2 of the Constitution Alteration (State Debts) 1909, the words in square brackets are omitted.

† Under Section 2 of the Constitution Alteration (State Debts) 1928, the Constitution was amended by the insertion of this section.

107. Every power of the Parliament of a Colony which has become or becomes a State, shall, unless it is by this Constitution exclusively vested in the Parliament of the Commonwealth or withdrawn from the Parliament of the State, continue as at the establishment of the Commonwealth, or as at the admission or establishment of the State, as the case may be.

108. Every law in force in a Colony which has become or becomes a State, and relating to any matter within the powers of the Parliament of the Commonwealth, shall, subject to this Constitution, continue in force in the State; and, until provision is made in that behalf by the Parliament of the Commonwealth, the Parliament of the State shall have such powers of alteration and of repeal in respect of any such law as the Parliament of the Colony had until the Colony became a State.

109. When a law of a State is inconsistent with a law of the Commonwealth, the latter shall prevail, and the former shall, to the extent of the inconsistency, be invalid.

110. The provisions of this Constitution relating to the Governor of a State extend and apply to the Governor for the time being of the State, or other chief executive officer or administrator of the government of the State.

111. The Parliament of a State may surrender any part of the State to the Commonwealth; and upon such surrender, and the acceptance thereof by the Commonwealth, such part of the State shall become subject to the exclusive jurisdiction of the Commonwealth.

112. After uniform duties of customs have been imposed, a State may levy on imports or exports, or on goods passing into or out of the State, such charges as may be necessary for executing the inspection laws of the State; but the net produce of all charges so levied shall be for the use of the Commonwealth; and any such inspection laws may be annulled by the Parliament of the Commonwealth.

113. All fermented, distilled, or other intoxicating liquids passing into any State or remaining therein for use, consumption, sale, or storage, shall be subject to the laws of the State as if such liquids had been produced in the State.

114. A State shall not, without the consent of the Parliament of the Commonwealth, raise or maintain any naval or military force, or impose any tax on property of any kind belonging to the Commonwealth, nor shall the Commonwealth impose any tax on property of any kind belonging to a State.

115. A State shall not coin money, nor make anything but gold and silver coin a legal tender in payment of debts.

116. The Commonwealth shall not make any law for establishing any religion, or for imposing any religious observance, or for prohibiting the free exercise of any religion, and no religious test shall be required as a qualification for any office or public trust under the Commonwealth.

117. A subject of the Queen, resident in any State, shall not be subject in any other State to any disability or discrimination which would not be equally applicable to him if he were a subject of the Queen resident in such other State.

118. Full faith and credit shall be given, throughout the Commonwealth, to the laws, the public Acts and records, and the judicial proceedings of every State.

119. The Commonwealth shall protect every State against invasion and, on the application of the Executive Government of the State, against domestic violence.

120. Every State shall make provision for the detention in its prisons of persons accused or convicted of offences against the laws of the Commonwealth, and for the punishment of persons convicted of such offences, and the Parliament of the Commonwealth may make laws to give effect to this provision.

CHAPTER VI.—NEW STATES.

121. The Parliament may admit to the Commonwealth or establish new States, and may upon such admission or establishment make or impose such terms and conditions, including the extent of representation in either House of the Parliament, as it thinks fit.

122. The Parliament may make laws for the government of any territory surrendered by any State to and accepted by the Commonwealth, or of any territory placed by the Queen under the authority of and accepted by the Commonwealth, or otherwise acquired by the Commonwealth, and may allow the representation of such territory in either House of the Parliament to the extent and on the terms which it thinks fit.

123. The Parliament of the Commonwealth may, with the consent of the Parliament of a State, and the approval of the majority of the electors of the State voting upon the question, increase, diminish, or otherwise alter the limits of the State, upon such terms and conditions as may be agreed on, and may, with the like consent, make provision respecting the effect and operation of any increase or diminution or alteration of territory in relation to any State affected.

124. A new State may be formed by separation of territory from a State, but only with the consent of the Parliament thereof, and a new State may be formed by the union of two or more States or parts of States, but only with the consent of the Parliaments of the States affected.

CHAPTER VII.—MISCELLANEOUS.

125. The seat of Government of the Commonwealth shall be determined by the Parliament, and shall be within territory which shall have been granted to or acquired by the Commonwealth, and shall be vested in and belong to the Commonwealth, and shall be in the State of New South Wales, and be distant not less than one hundred miles from Sydney.

Such territory shall contain an area of not less than one hundred square miles, and such portion thereof as shall consist of Crown lands shall be granted to the Commonwealth without any payment therefor.

The Parliament shall sit at Melbourne until it meet at the seat of Government.

126. The Queen may authorize the Governor-General to appoint any person, or any persons jointly or severally, to be his deputy or deputies within any part of the Commonwealth, and in that capacity to exercise during the pleasure of the Governor-General such powers and functions of the Governor-General as he thinks fit to assign to such deputy or deputies, subject to any limitations expressed or directions given by the Queen; but the appointment of such deputy or deputies shall not affect the exercise by the Governor-General himself of any power or function.

127. In reckoning the numbers of the people of the Commonwealth, or of a State or other part of the Commonwealth, aboriginal natives shall not be counted.

CHAPTER VIII.—ALTERATION OF THE CONSTITUTION.

128. This Constitution shall not be altered except in the following manner:—

The proposed law for the alteration thereof must be passed by an absolute majority of each House of the Parliament, and not less than two nor more than six months after its passage through both Houses the proposed law shall be submitted in each State to the electors qualified to vote for the election of members of the House of Representatives.

But if either House passes any such proposed law by an absolute majority, and the other House rejects or fails to pass it or passes it with any amendment to which the first-mentioned House will not agree, and if after an interval of three months the first-mentioned House in the same or the next session again passes the proposed law by an absolute majority with or without any amendment which has been made or agreed to by the other House, and such other House rejects or fails to pass it or passes it with any amendment to which the first-mentioned House will not agree, the Governor-General may submit the proposed law as last proposed by the first-mentioned House, and either with or without any amendments subsequently agreed to by both Houses, to the electors in each State qualified to vote for the election of the House of Representatives.

When a proposed law is submitted to the electors the vote shall be taken in such manner as the Parliament prescribes. But until the qualification of electors of members of the House of Representatives becomes uniform throughout the Commonwealth, only one-half the electors voting for and against the proposed law shall be counted in any State in which adult suffrage prevails.

And if in a majority of the States a majority of the electors voting approve the proposed law, and if a majority of all the electors voting also approve the proposed law, it shall be presented to the Governor-General for the Queen's assent.

No alteration diminishing the proportionate representation of any State in either House of the Parliament, or the minimum number of representatives of a State in the House of Representatives, or increasing, diminishing, or otherwise altering the limits of the State, or in any manner affecting the provisions of the Constitution in relation thereto, shall become law unless the majority of the electors voting in that State approve the proposed law.

SCHEDULE.

OATH.

I, *A.B.*, do swear that I will be faithful and bear true allegiance to Her Majesty Queen Victoria, Her heirs and successors according to law. SO HELP ME GOD!

AFFIRMATION.

I, *A.B.*, do solemnly and sincerely affirm and declare that I will be faithful and bear true allegiance to Her Majesty Queen Victoria, Her heirs and successors according to law.

(NOTE.—*The name of the King or Queen of the United Kingdom of Great Britain and Ireland for the time being is to be substituted from time to time.*)

3. The Royal Proclamation.—The preceding Act received the Royal assent on the 9th July, 1900. This made it lawful to declare that the people of Australia should be united in a Federal Commonwealth. This proclamation, made on the 17th September, 1900, constituted the Commonwealth as from the 1st January, 1901; it reads as follows :—

BY THE QUEEN.

A PROCLAMATION.

(Signed) VICTORIA R.

WHEREAS by an Act of Parliament passed in the Sixty-third and Sixty-fourth Years of Our Reign, intituled "An Act to constitute the Commonwealth of *Australia*," it is enacted that it shall be lawful for the Queen, with the advice of the Privy Council, to declare by Proclamation, that, on and after a day therein appointed, not being later than One year after the passing of this Act, the people of *New South Wales*, *Victoria*, *South Australia*, *Queensland*, and *Tasmania*, and also, if Her Majesty is satisfied that the people of *Western Australia* have agreed thereto, of *Western Australia*, shall be united in a Federal Commonwealth under the name of the Commonwealth of Australia.

And whereas We are satisfied that the people of *Western Australia* have agreed thereto accordingly.

We therefore, by and with the advice of Our Privy Council, have thought fit to issue this Our Royal Proclamation, and We do hereby declare that on and after the First day of *January* One thousand nine hundred and one, the people of *New South Wales*, *Victoria*, *South Australia*, *Queensland*, *Tasmania*, and *Western Australia* shall be united in a Federal Commonwealth under the name of the Commonwealth of *Australia*.

Given at Our Court at *Balmoral* this Seventeenth day of *September*, in the Year of Our Lord One thousand nine hundred, and in the Sixty-fourth Year of Our Reign.

GOD SAVE THE QUEEN.

CHAPTER II.

PHYSIOGRAPHY.

§ 1. General Description of Australia.

1. **Geographical Position.**—(i) *General.* The Australian Commonwealth, which includes the island continent of Australia proper and the island of Tasmania, is situated in the Southern Hemisphere, and comprises in all an area of about 2,974,581 square miles, the mainland alone containing about 2,948,366 square miles. Bounded on the west and east by the Indian and Pacific Oceans respectively, it lies between longitudes 113° 0′ E. and 153° 39′ E., while its northern and southern limits are the parallels of latitude 10° 41′ S. and 39° 8′ S., or, including Tasmania, 43° 39′ S. On its north are the Timor and Arafura Seas and Torres Strait—on its south the Southern Ocean and Bass Strait. The extreme points are "Steep Point" on the west, "Cape Byron" on the east, "Cape York" on the north, "Wilson's Promontory" on the south, or, if Tasmania be included, "South-East Cape."

(ii) *Tropical and Temperate Regions.* Of the total area of Australia nearly 40 per cent. lies within the tropics. Assuming, as is usual, that the latitude of the Tropic of Capricorn is 23° 30′ S., the areas within the tropical and temperate zones are approximately as follows :—

AUSTRALIA : AREAS OF TROPICAL AND TEMPERATE REGIONS.

Area.	N.S.W. (a)	Vic.	Qld.	S. Aust.	W. Aust.	Tas.	N. Terr.	Total.
Within Tropical Zone sq. miles	..	..	359,000	..	364,000	..	426,320	1,149,320
Within Temperate Zone sq. miles	310,372	87,884	311,500	380,070	611,920	26,215	97,300	1,825,261
Total Area sq. miles	310,372	87,884	670,500	380,070	975,920	26,215	523,620	2,974,581
Ratio of Tropical par whole State	..	..	0.535	..	0.373	..	0.814	0.386
Ratio of Temperate part to whole State	1	1	0.465	1	0.627	1	0.186	0.614

(a Includes Australian Capital Territory.

Thus, of the whole of Australia, the tropical part is roughly about five-thirteenths, (0.386) or, of the three territories with areas within the tropical zone, about one-half (0.530).

2. **Area of Australia compared with Areas of other Countries.**—The area of Australia is almost as great as that of the United States of America, four-fifths of that of Canada, more than one-fifth of the area of the British Commonwealth, nearly three-fourths of the whole area of Europe, and about 25 times as large as Great Britain and

Ireland. The area of Australia and of certain other countries are shown in the following table :—

AREA OF AUSTRALIA AND OF OTHER COUNTRIES, *circa* 1949.

('000 sq. miles.)

Country.	Area.
Continental Divisions—	
Europe (*a*)	1,914
Asia (*a*)	10,359
U.S.S.R. (Europe and Asia)	8,599
Africa	11,681
North and Central America and West Indies	9,367
South America	6,854
Oceania	3,304
Total, excluding Arctic and Antarctic Conts.	52,078
Europe(*a*)—	
France	213
Spain (incl. possessions)	194
Sweden	173
Germany	136
Finland	130
Norway	125
Poland	120
Italy	116
Yugoslavia	99
United Kingdom	94
Rumania	92
Other	422
Total	1,914
Asia(*a*)—	
China and Dependencies	3,759
India	1,221
Indonesia(*b*)	735
Iran	629
Mongolian Peoples' Republic	626
Saudi Arabia	597
Pakistan	360
Turkey	287
French Indo-China	272
Burma	262
Afghanistan	251
Thailand	198
Other	1,162
Total	10,359
U.S.S.R.	8,599
Africa—	
French West Africa	1,805
French Equatorial Africa	969
Anglo-Egyptian Sudan	967
Belgian Congo	905
Algeria	851
Libya	679
Africa—*continued.*	
Angola	481
Union of South Africa	472
Ethiopia	409
Egypt	386
Tanganyika Territory	363
Nigeria and Protectorate	339
South-West Africa	318
Mozambique	298
Northern Rhodesia	290
Bechuanaland Protectorate	275
Madagascar	229
Kenya Colony and Protectorate	225
Other	1,420
Total	11,681
North and Central America—	
Canada	3,843
United States of America	3,022
Greenland	840
Mexico	760
Alaska	586
Honduras	59
Nicaragua	57
Other	200
Total	9,367
South America—	
Brazil	3,288
Argentine Republic	1,079
Peru	482
Colombia (excl. of Panama)	440
Bolivia	413
Venezuela	352
Chile	286
Paraguay	157
Ecuador	106
Other	251
Total	6,854
Oceania—	
Commonwealth of Australia	2,975
New Zealand and Dependencies	104
New Guinea	93
Papua	91
Other	41
Total	3,304
British Commonwealth	13,258

(*a*) Excludes U.S.S.R., shown below. (*b*) Includes Dutch New Guinea.

The areas shown in the table are obtained from the *Demographic Yearbook*, 1949–50 published by the United Nations and the countries have been arranged in accordance with the continental groups used therein.

3. **Areas of Political Subdivisions.**—As already stated, Australia consists of six States and the Northern, and Australian Capital, Territories. The areas of these, and their proportions of the total of Australia, are shown in the following table :—

AUSTRALIA : AREA OF STATES AND TERRITORIES.

State or Territory.	Area.	Proportion of Total.
	Sq. miles.	%
New South Wales	309,433	10.40
Victoria	87,884	2.96
Queensland	670,500	22.54
South Australia	380,070	12.78
Western Australia	975,920	32.81
Tasmania	26,215	0.88
Northern Territory	523,620	17.60
Australian Capital Territory ..	939	0.03
Total	2,974,581	100.00

4. **Coastal Configuration**—(i) *General.* There are no striking features in the configuration of the coast ; the most remarkable indentations are the Gulf of Carpentaria on the north and the Great Australian Bight on the south. The Cape York Peninsula on the extreme north is the only other remarkable feature in the outline. In Official Year Book No. 1 an enumeration is given of the features of the coast-line of Australia (*see* pp. 60–68).

(ii) *Coast-line.* The lengths of coast-line, excluding minor indentations, of each State and of the whole continent, and the area per mile of coast-line, are shown in the following table :—

AUSTRALIA : COAST-LINE AND AREA PER MILE THEREOF.

State.	Coast-line.	Area per Mile of Coast-line.
	Miles.	Sq. miles.
New South Wales(*a*)	700	443
Victoria	680	129
Queensland ..	3,000	223
South Australia ..	1,540	247
Western Australia	4,350	224
Northern Territory	1,040	503
Continent (*b*) ..	11,310	261
Tasmania ..	900	29

(*a*) Includes Australian Capital Territory. (*b*) Area 2,948,366 square miles.

For the entire Commonwealth of Australia there is a coast-line of 12,210 miles with an average of 244 square miles for one mile of coast-line. According to Strelbitski, Europe has only 75 square miles of area to each mile of coast-line, and, according to more recent figures, England and Wales have only one-third of this, 25 square miles.

5. **Geographical Features of Australia.**—In separate issues of earlier Official Year Books fairly complete information has been given concerning some special geographical element. The nature of this information and its position in the various issues can be readily ascertained on reference to the special index following the index to maps and graphs at the end of this issue.

6. **Fauna, Flora, Geology and Seismology of Australia.**—Special articles dealing with these features have appeared in previous issues of the Official Year Book, but limits of space naturally preclude their repetition in each volume. As pointed out in par. 5, however, the nature and position of these articles can be readily ascertained from the special index.

§ 2. Climate and Meteorology of Australia.*

1. **Introductory.**—Previous issues of the Official Year Book, notably No. 3, pp. 79 and 80, and No. 4, pp. 84 and 87, contained outlines of the history of Australian meteorology and the creation and organization of the Commonwealth Bureau of Meteorology. Official Year Book No. 38, pp. 30–32, contained paragraphs devoted to (i) Organization of the Meteorological Service; (ii) Meteorological Publications; (iii) Equipment; and (iv) Meteorological Divisions.

By reason of its insular geographical position and the absence of striking physical features, whether in marine gulfs or in important mountains, Australia is, on the whole, less subject to extremes of weather than are regions of similar area in other parts of the globe, and latitude for latitude Australia is, on the whole, more temperate.

The average elevation of the surface of the land is low, probably close to 900 feet above the sea. The altitudes range up to a little over 7,300 feet, hence its climate embraces a great many features, from the characteristically tropical to what is essentially alpine, a fact indicated in some measure by the name Australian Alps given to the southern portion of the Great Dividing Range.

On the coast, the rainfall is often abundant and the atmosphere moist, but in some portions of the interior is very limited, and the atmosphere dry. The distribution of forest, therefore, with its climatic influence, is very uneven. In the interior, in places, there are fine belts of trees, but there are large areas also which are treeless, and here the air is hot and parching in summer. Again, on the coast, even so far south as latitude 35°, the vegetation is tropical in its luxuriance, and to some extent also in character. Climatologically, therefore, Australia may be said to present a great variety of features.

2. **Temperature.**—(i) *Effective Temperature.* When a meteorologist speaks of temperature he means the temperature of the air indicated by a thermometer sheltered from precipitation, from direct rays of the sun and from radiation of heat from the ground and neighbouring objects, yet freely exposed to the circulation of the air. In other words, he means temperature measured under conditions standardized as near as possible in a Stevenson Screen, which is the standard housing for meteorological thermometers.

This shade temperature as measured by a "dry bulb" thermometer shows only the actual temperature experienced by dry inorganic substances, not the *sensible* temperatures felt by organic bodies. In the case of human beings, sensible temperature is affected by the rate of conduction of heat to or from the body by moving air and also by the rate of cooling due to evaporation from the skin and respiratory passages. The wind and humidity therefore determine the sensible temperature.

The humidity (relative humidity) is determined from the readings of the dry and wet bulb thermometers. Of late years, however, with increasing interest in human comfort in tropical climates, another term, *effective* temperature, has come into use. It may be defined as "the temperature of a still, saturated atmosphere which would on the average produce the same feeling of warmth or cold as the atmosphere in question".†

Later investigations have established "comfort zones"‡ bounded by limits of effective temperature within which people will feel comfortable. American research workers have determined the following figures :—§

COMFORT ZONES : EFFECTIVE TEMPERATURES.

Season.	No subjects feel comfortable below—	Fifty per cent. of subjects feel comfortable between—	No subjects feel comfortable above—
Winter	60° F.	63° and 71° F.	74° F.
Summer	64° F.	66° and 75° F.	79° F.

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* Prepared from data supplied by the Acting Director, Commonwealth Meteorological Bureau.

† Houghton, F. C., Teague, W. W. and Miller, W. E. (1926) Amer. Soc. Heat. Vent. Engns.

‡ Yaglou, C. P. (1926) J. Industr. Hyg.

§ Yaglou, C. P. (1927) Ibid.

Isotherms of effective temperature (not corrected for altitude) have been determined for Australia.[*] A map showing effective temperature for Australia for January (9 a.m.) will be found on page 33.

It will be seen that the 80° F. isotherm is confined to a very narrow tract of country on the north-west coast of Western Australia. The 75° F. isotherm extends broadly from Onslow on the north-west coast of Western Australia to Daly Waters to Camooweal to Moreton in Cape York Peninsula following in a general way the coastline of Northern Australia but from 100 to 300 miles inland.

Queensland investigators[†] in recent years have divided some towns of Queensland into three classes on the basis of deviation from comfort :—

Class 1 (Sub-tropics).—Quite suitable for Caucasian habitation—Rockhampton, Bundaberg, Brisbane, Longreach, Charleville.

Class 2 (Marginal tropics).—Suitable for Caucasian habitation, but requires adaptation in summer—Mackay, Townsville.

Class 3 (Tropics).—(*a*) Permissible for Caucasian habitation but requires selection and marked adaptation—Cardwell, Cairns, Cloncurry. (*b*) Not suitable for continuous Caucasian habitation—Cape York, Burketown.

These results of recent years bear out investigations made previously in Australia[‡] in which the atmospheric vapour pressure was used as a measure of comfort, its value for this purpose being that it has equal effect in both indoor and outdoor climates. The limits of comfort range from .2 to .5 inch of vapour pressure. After drawing isopleths for effective temperature (not corrected for altitude), mean vapour pressure reduced to a logarithmic scale, and mean wet bulb, it is found that there is close agreement in defining zones of relative discomfort.

(ii) *Seasons.* The Australian seasons are :—Summer, December to February ; autumn, March to May ; winter, June to August ; spring, September to November. In most parts of Australia, January is the hottest month, but in Tasmania and southern Victoria, February is the hottest ; in the tropical north, probably because the cooling " monsoon " rains occur in late summer, December is the hottest month, and at Darwin, November.

On a rainfall basis, in the tropical north the year is divisible into " wet " and " dry " seasons, but on the basis of temperature and physical comfort the " dry " season can be further sub-divided into two parts—" cool dry " and " warm dusty ". [§]

(*a*) " *Cool dry* " *Season.* From May to August. The average maximum temperature ranges from 80° to 85° F., the relative humidity is low and in inland areas cold nights are experienced when the temperature drops to 40° F. The skies generally are cloudless, but in about one year in three during June or July one to two inches of rain fall.

(*b*) " *Warm dusty* " *Season.* From the end of August temperatures rise and reach a maximum in October or the beginning of November. Temperatures of over 120° F. have been recorded.

(*c*) " *Wet* " *Season.* After the first of the heavy storms, the maximum temperatures fall but still remain high with high relative humidity. At Wyndham during January, 1944 the minimum temperature did not drop below 75° F. for fourteen consecutive days. A maximum of over 100° F. was recorded on each rainless day.

In Central as in Northern Australia during the hottest months, the average temperatures range from 80° to 85° F., whereas in Southern Australia they vary from 65° to 70°.

Throughout Australia the coldest month is July, when only a very narrow strip of the northern sea-board has an average temperature as high as 75°. Over the southern half of the continent, July temperatures range from 55° to 45° at elevations below 1,500 feet and fall as low as 35° on the Australian Alps. Here the temperature seldom, if ever, reaches 100° even in the hottest of seasons. Hotham Heights (6,100 feet above Mean Sea Level) recorded the highest maximum of 82.0° on 19th January, 1935. In winter, readings slightly below zero are occasionally recorded on the extreme heights.

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[*] Hounam, C. E Effective Temp. Data, C.W.B. unpublished.

[†] Lee, D. H. K. Trans. Roy. Soc. Trop. Med and Hyg (1940) Vol. XXXII.

[‡] Barkley, H. Zones of Relative Physical Comfort in Australia. Met. Bull. 20, 1934.

[§] Maze, W. H. Austn. Geog. June, 1945. Settlement in E. Kimberleys.

Tasmania as a whole enjoys a moderate and equable range of temperature throughout the year, although occasionally hot winds may cause the temperature to rise to 100° in the eastern part of the State.

(iii) *Comparisons with other Countries.* In respect of Australian temperatures generally, it may be pointed out that the mean annual isotherm for 70° F. extends in South America and South Africa as far south as latitude 33°, while in Australia it reaches only as far south as latitude 30°, thus showing that, on the whole, Australia has, latitude for latitude, a more temperate climate than other places in the southern Hemisphere.

The comparison is even more favourable when the Northern Hemisphere is included, for in the United States of America the 70° isotherm extends in several of the western States as far north as latitude 41°. In Europe, the same isotherm reaches almost to the southern shores of Spain, passing afterwards, however, along the northern shores of Africa till it reaches the Red Sea, when it bends northward along the eastern shore of the Mediterranean till it reaches Syria. In Asia, nearly the whole of the land area south of latitude 40° N. has a higher temperature than 70°.

The extreme range of temperature is less than 100° over practically the whole of Australia, that figure being only slightly exceeded at a very few places; it is mostly 70° to 90° over inland areas, and somewhat less on the coast. In parts of Asia and North America, the extreme range exceeds 130° and 150° in some localities.

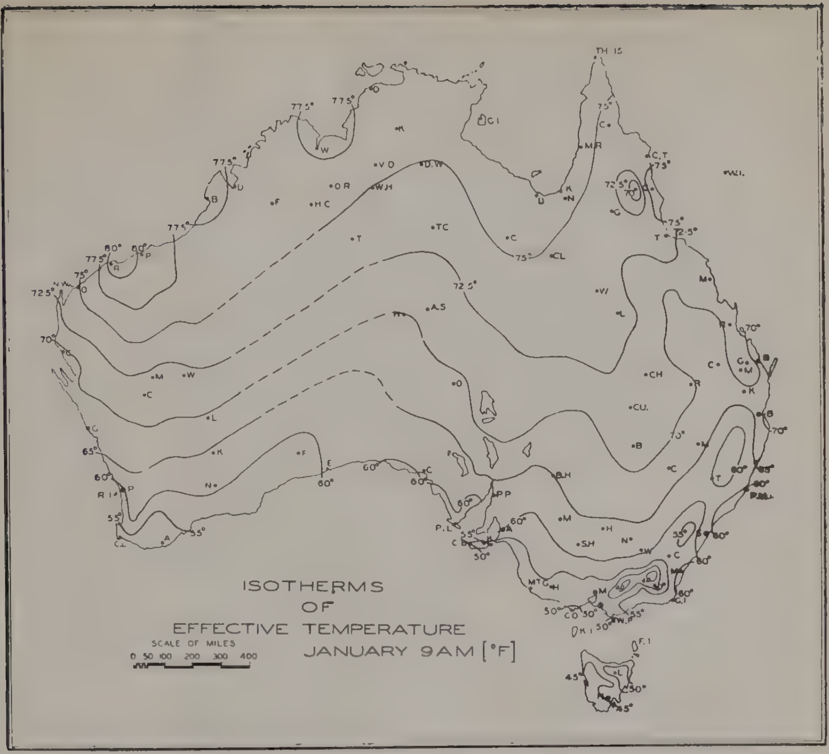
Along the northern shores of Australia the temperatures are very equable. At Darwin, for example, the difference in the means for the hottest and coldest month is only 8.4°, and the extreme readings for the year, or the highest maximum on record and the lowest minimum, show a difference of under 50°.

The highest temperature recorded in Australia was 127.5° F. at Cloncurry on 16th January, 1889. The world's highest (136° F.) was recorded at Azizia (Tripoli) on 13th August, 1922. The lowest temperature ever recorded in Australia was —8° F. at Charlotte Pass on 14th June, 1945, and again on 22nd July, 1947, as contrasted with the world's lowest recorded temperature of —90° F. at Verkhoyansk (Siberia) on 5th and 7th February, 1892.

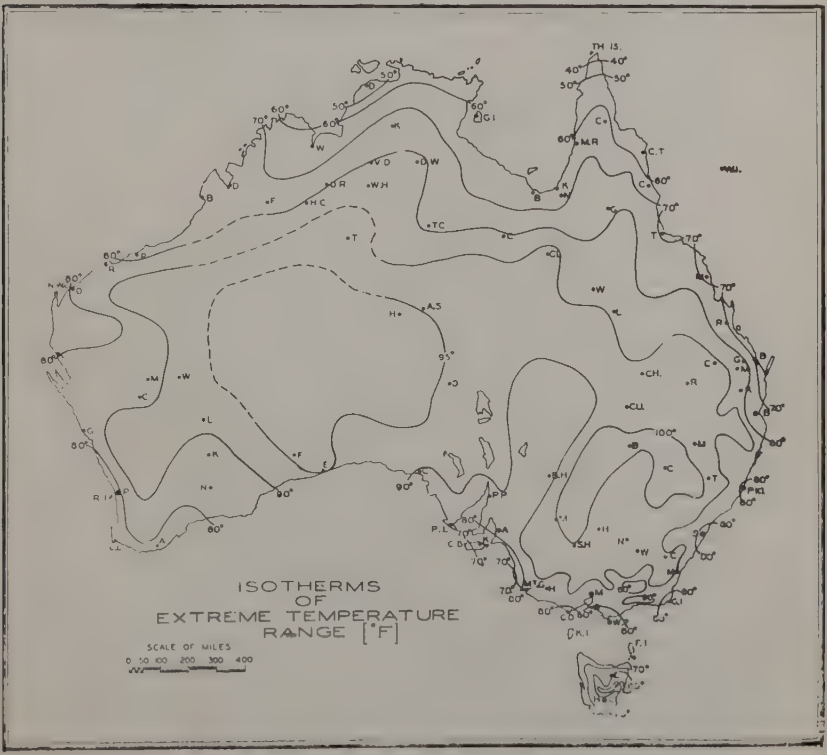
A comparison of the mean temperatures and the range from the extreme maximum to the extreme minimum temperatures (in whole degrees) of the capital cities of Australia with those of the main cities of some other countries is shown in tabular form in Official Year Book No. 38, p. 42.

(iv) *Hottest and Coldest Parts.* A comparison of the temperatures recorded at coast and inland stations shows that, in Australia, as in other continents, the range increases, within certain limits, with increasing distance from the coast. This is clearly illustrated by the map of extreme temperature range (page 33).

In the interior of Australia, and during exceptionally dry summers, the temperature occasionally reaches or exceeds 120° in the shade. The hottest area of the continent is situated in the northern part of Western Australia about the Marble Bar and Nullagine gold-fields, where the maximum shade temperature during the summer sometimes exceeds 100° continuously for days and weeks. The longest recorded period was 160 days from 31st October, 1923 to 7th April, 1924.

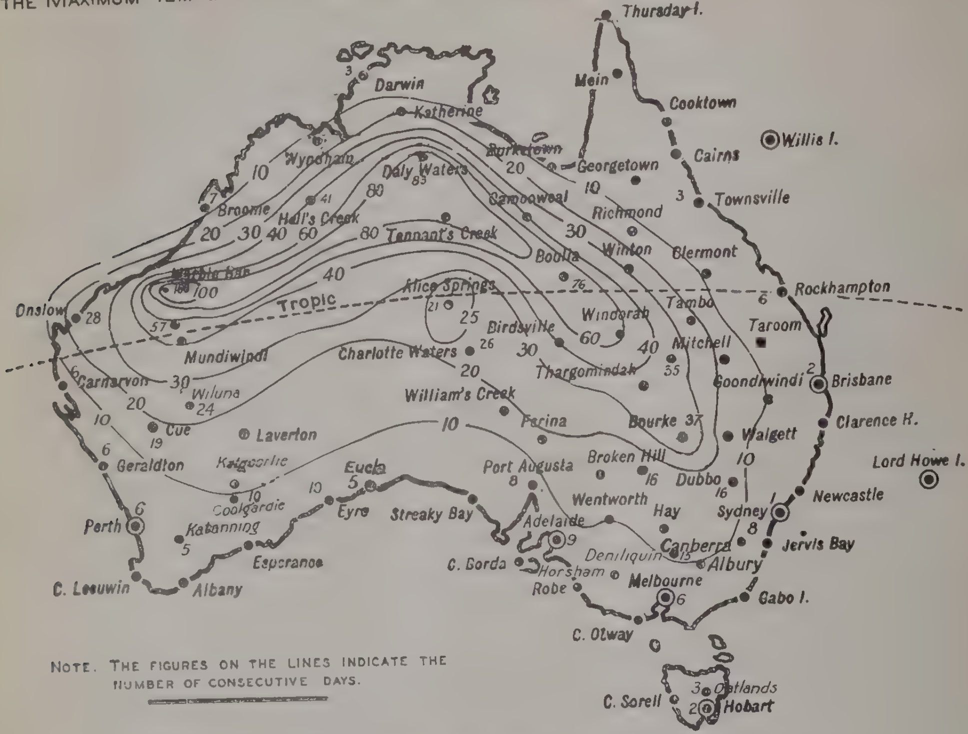

ISOTHERMS OF EFFECTIVE TEMPERATURE JANUARY 9AM [°F]

SCALE OF MILES
0 50 100 200 300 400
TH IS.
77.5°
75°
72.5°
70°
65°
60°
55°
50°
45°

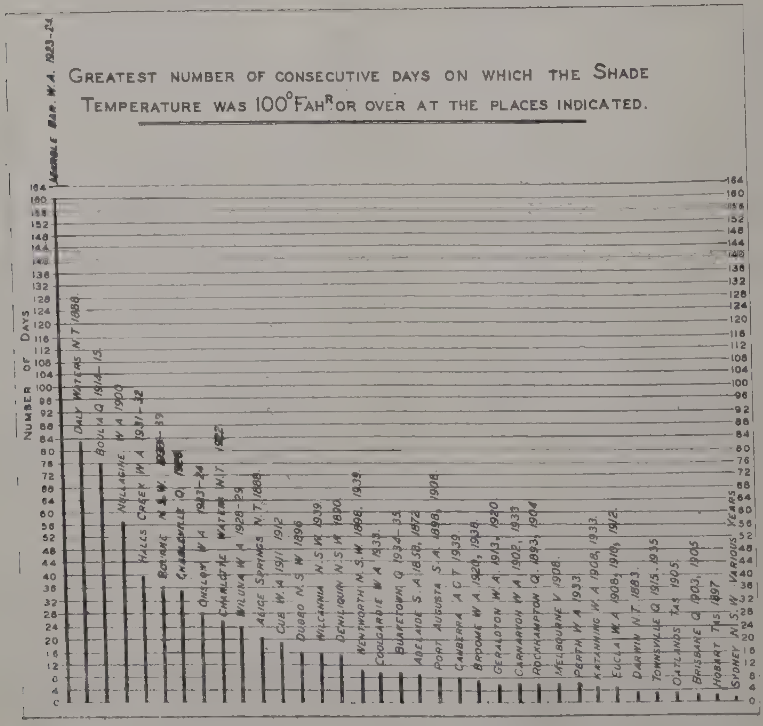

ISOTHERMS OF EXTREME TEMPERATURE RANGE [°F]

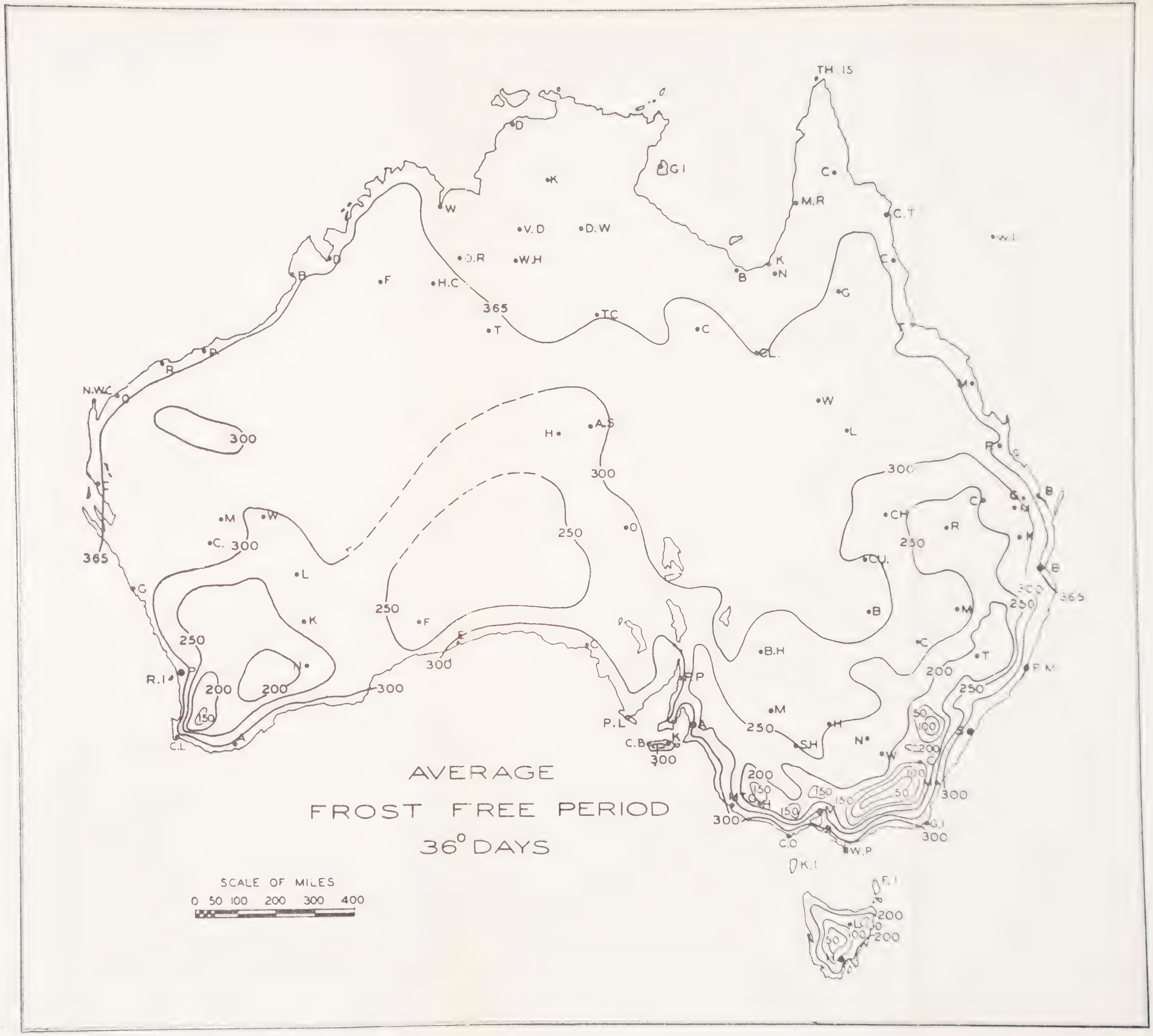
SCALE OF MILES
0 50 100 200 300 400
TH IS.
40°
50°
60°
70°
80°
90°
95°
100°

AREA AFFECTED AND PERIOD OF DURATION OF THE LONGEST HEAT WAVES WHEN THE MAXIMUM TEMPERATURE FOR CONSECUTIVE 24 HOURS REACHED OR EXCEEDED 100°F.


Thursday I.
Mein
Cooktown
Cairns
Willis I.
Townsville
Darwin
Katherine
Wyndham
Daly Waters
Burketown
Georgetown
Camooweal
Richmond
Broome
Hall's Creek
Tennant's Creek
Boulia
Winton
Clermont
Marble Bar
Alice Springs
Tropic
Rockhampton
Onslow
Windorah
Tambo
Taroom
Birdsville
Mitchell
Mundiwindi
Charlotte Waters
Thargomindah
Goondiwindi
Brisbane
Carnarvon
Wiluna
William's Creek
Clarence R.
Cue
Laverton
Farina
Bourke
Walgett
Lord Howe I.
Geraldton
Kalgoorlie
Eucla
Port Augusta
Broken Hill
Dubbo
Coolgardie
Eyre
Streaky Bay
Wentworth
Hay
Sydney
Newcastle
Perth
Katanning
Adelaide
Canberra
Jervis Bay
Esperance
C. Borda
Deniliquin
Albury
Horsham
C. Leeuwin
Albany
Robe
Melbourne
Gabo I.
C. Otway
Oatlands
C. Sorell
Hobart
10
20
30
40
60
80
100
10
20
30
40
60
25
20
10
85
41
76
160
57
28
21
26
37
35
24
19
6
7
3
10
5
9
16
16
8
1
2
6
3
15
6
5
6
3
2

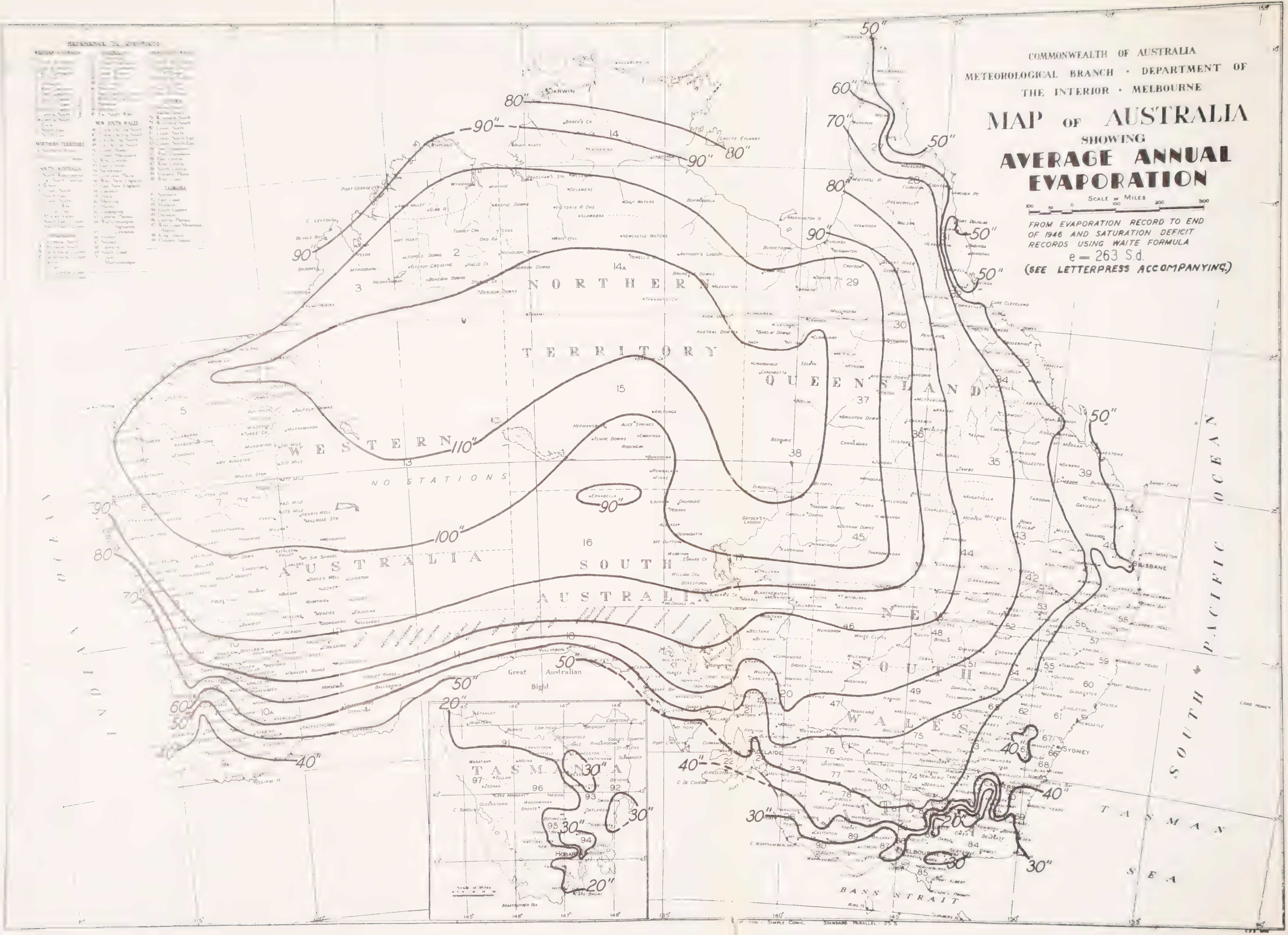
NOTE. THE FIGURES ON THE LINES INDICATE THE NUMBER OF CONSECUTIVE DAYS.


GREATEST NUMBER OF CONSECUTIVE DAYS ON WHICH THE SHADE TEMPERATURE WAS 100°FAH^R. OR OVER AT THE PLACES INDICATED.



AVERAGE
FROST FREE PERIOD
36° DAYS

SCALE OF MILES
0 50 100 200 300 400
TH. IS
G.I
C.
M.R
C.T
W.I
K
D
W
V.D
D.W
D.R
W.H
B
K
N
C
G
F
H.C
365
TC
T
C
CL.
T
R
R
N.W.C
O
300
M
W
H
A.S
L
R
300
C
M
W
O
250
CH
R
C
N
K
C. 300
250
365
CU.
B
B
300
250
365
G
L
K
250
F
E
B
M
250
C
T
P.M
B.H
R.I
P
200
200
N
300
300
200
250
150
P
P.L
M
H
N
S
C.L
A
C.B
K
250
S.H
W
200
300
200
150
150
150
M.T.G.
H
150
50
100
300
300
C.O
W.P
G.I
300
K.I
F.I
200
L
100
200
50
H

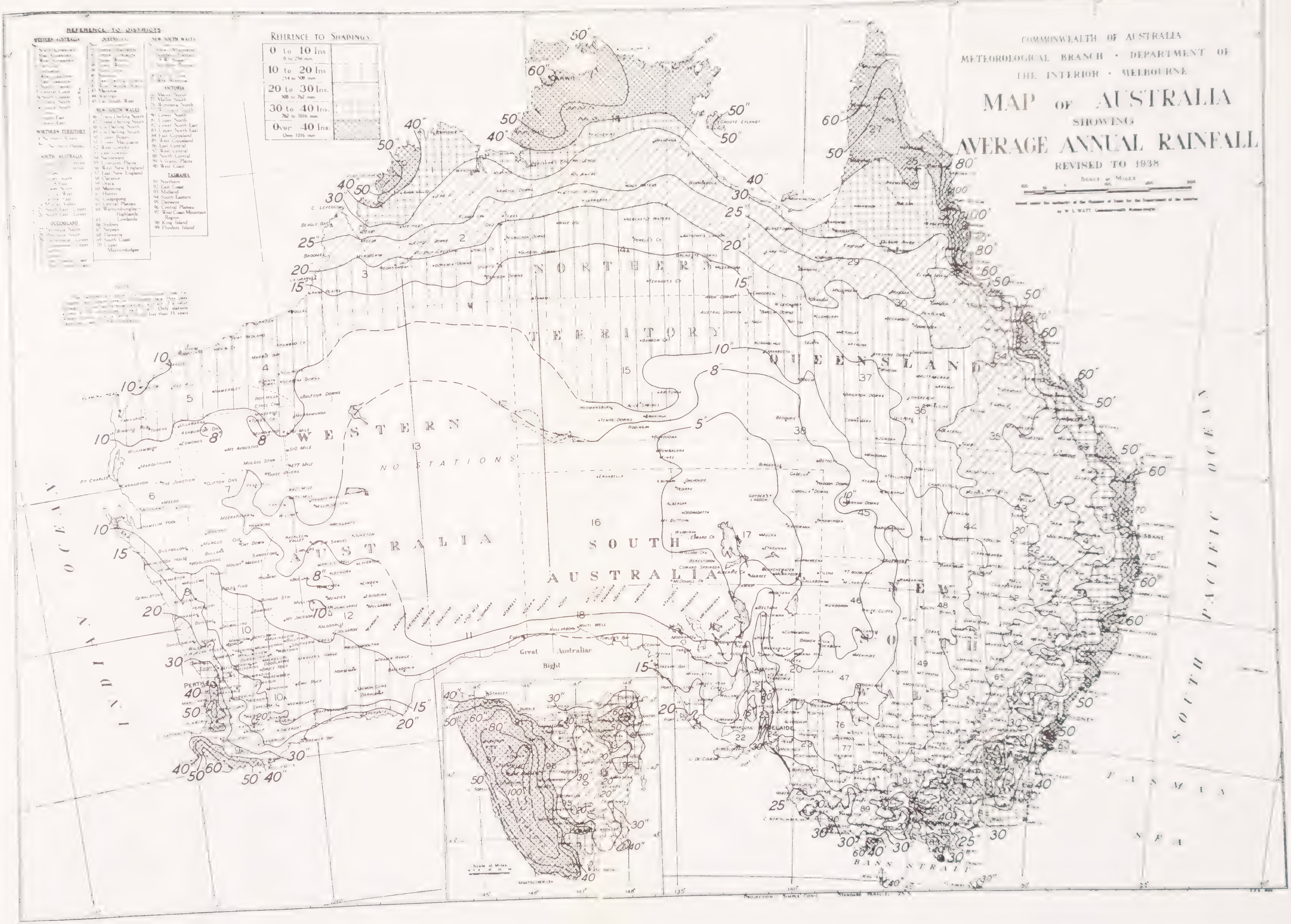


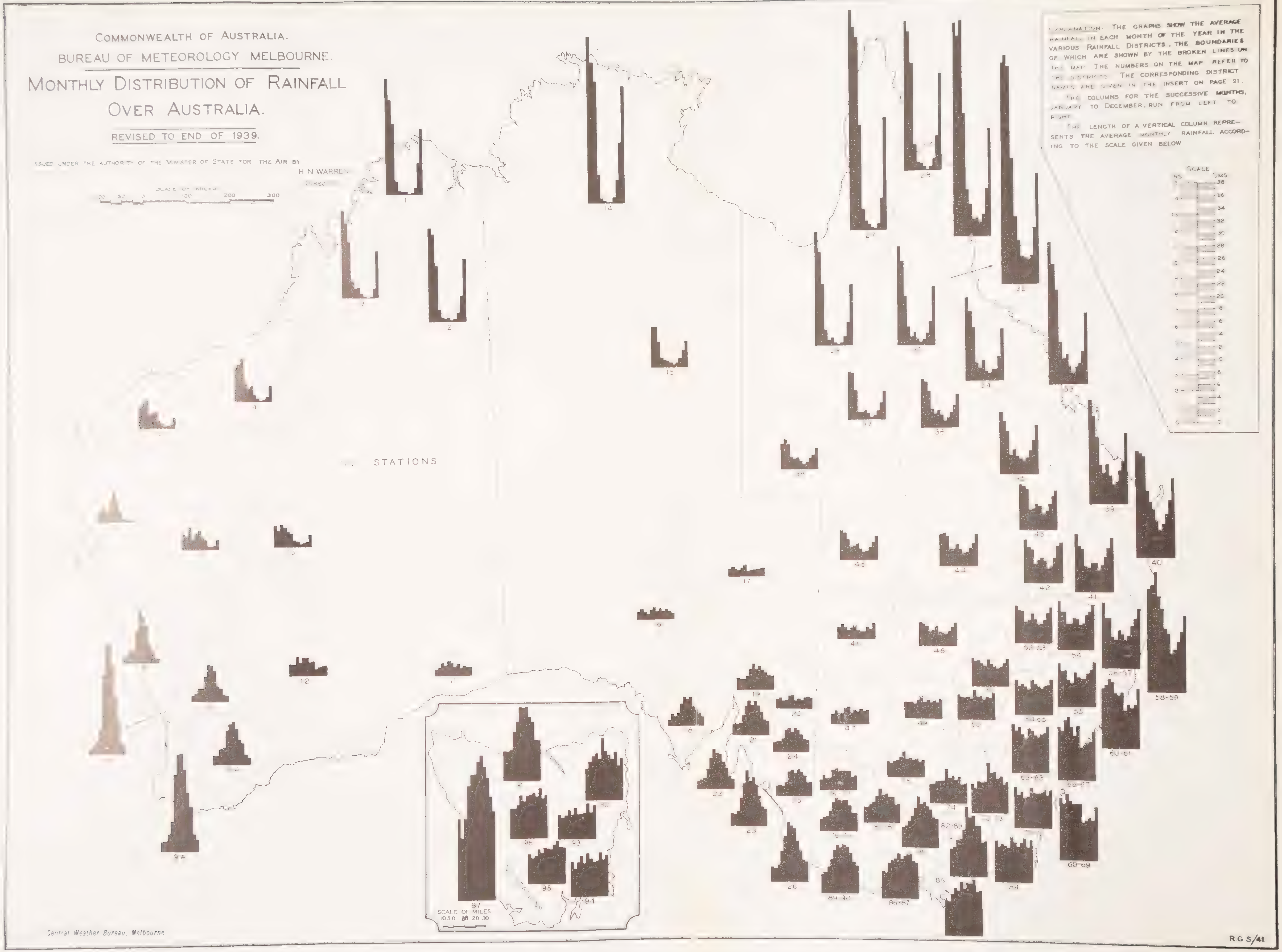
COMMONWEALTH OF AUSTRALIA
METEOROLOGICAL BRANCH · DEPARTMENT OF
THE INTERIOR · MELBOURNE

MAP OF AUSTRALIA
SHOWING
AVERAGE ANNUAL EVAPORATION

FROM EVAPORATION RECORD TO END OF 1946 AND SATURATION DEFICIT RECORDS USING WAITE FORMULA
e = 263 S.d.
(SEE LETTERPRESS ACCOMPANYING.)

SCALE OF MILES
100
0
100
200
300
NORTHERN TERRITORY
QUEENSLAND
WESTERN AUSTRALIA
SOUTH AUSTRALIA
NEW SOUTH WALES
VICTORIA
TASMANIA
NO STATIONS
INDIAN OCEAN
SOUTH PACIFIC OCEAN
TASMAN SEA
BASS STRAIT
Great Australian Bight
DARWIN
BRISBANE
SYDNEY
ADELAIDE
MELBOURNE
HOBART
ALICE SPRINGS
50"
60"
70"
80"
90"
100"
110"
40"
30"
20"
SIMPLE CONIC. STANDARD PARALLEL 25°S
115°
120°
135°
140°
145°
150°
155°
146°
147°
148°


COMMONWEALTH OF AUSTRALIA
METEOROLOGICAL BRANCH · DEPARTMENT OF THE INTERIOR · MELBOURNE
MAP OF AUSTRALIA
SHOWING
AVERAGE ANNUAL RAINFALL
REVISED TO 1938
SCALE OF MILES
REFERENCE TO DISTRICTS
REFERENCE TO SHADINGS
0 to 10 Ins 0 to 254 mm
10 to 20 Ins 254 to 508 mm
20 to 30 Ins. 508 to 762 mm
30 to 40 Ins. 762 to 1016 mm
Over 40 Ins. Over 1016 mm
WESTERN AUSTRALIA
NORTHERN TERRITORY
SOUTH AUSTRALIA
QUEENSLAND
NEW SOUTH WALES
NO STATIONS
INDIAN OCEAN
SOUTH PACIFIC OCEAN
TASMAN SEA
Great Australian Bight
BASS STRAIT
PERTH
ADELAIDE
DARWIN
BRISBANE



COMMONWEALTH OF AUSTRALIA.
BUREAU OF METEOROLOGY MELBOURNE.

MONTHLY DISTRIBUTION OF RAINFALL OVER AUSTRALIA.

REVISED TO END OF 1939.

ISSUED UNDER THE AUTHORITY OF THE MINISTER OF STATE FOR THE AIR BY
H N WARREN
DIRECTOR

EXPLANATION. THE GRAPHS SHOW THE AVERAGE RAINFALL IN EACH MONTH OF THE YEAR IN THE VARIOUS RAINFALL DISTRICTS, THE BOUNDARIES OF WHICH ARE SHOWN BY THE BROKEN LINES ON THE MAP. THE NUMBERS ON THE MAP REFER TO THE DISTRICTS. THE CORRESPONDING DISTRICT NAMES ARE GIVEN IN THE INSERT ON PAGE 21.

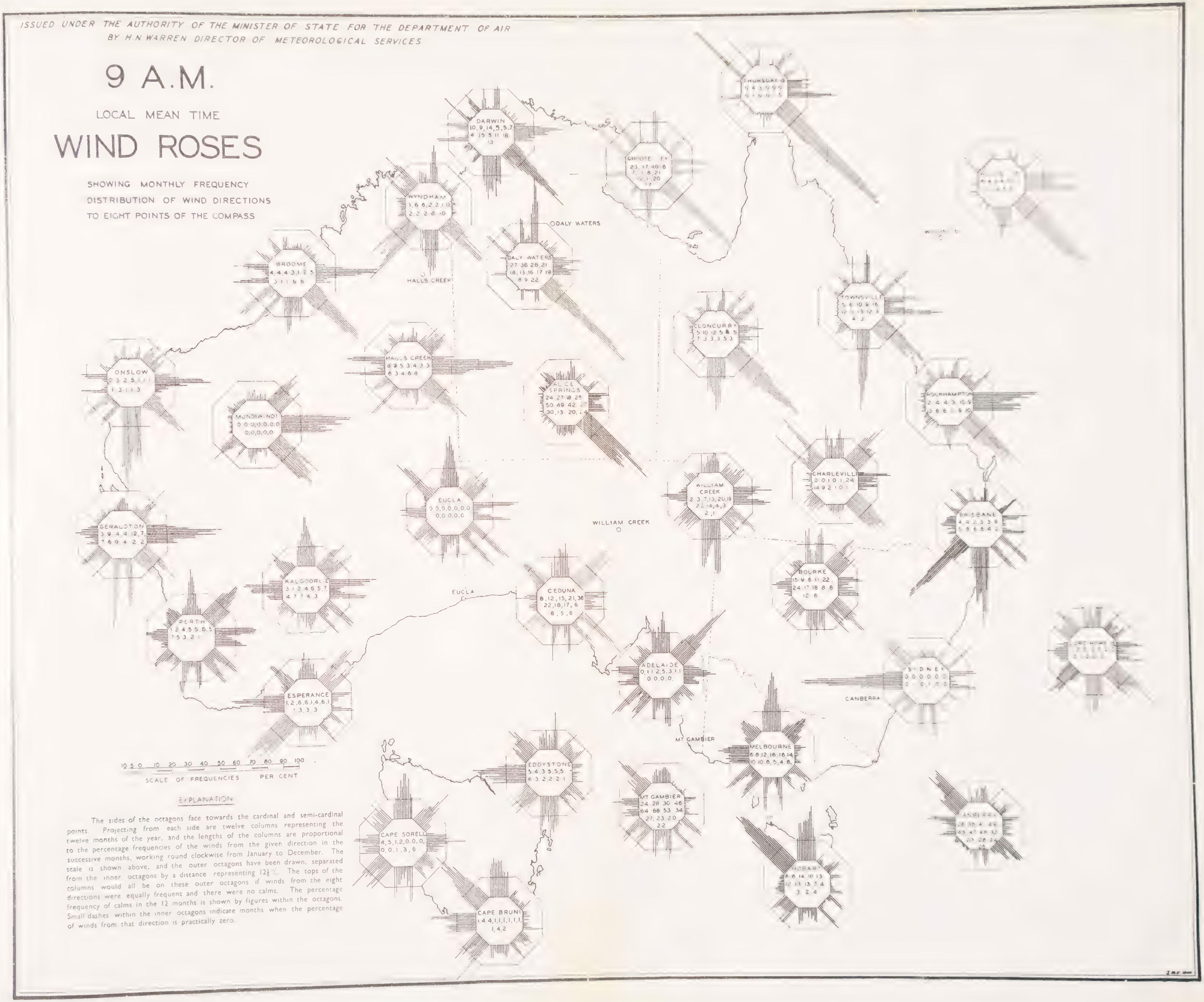
THE COLUMNS FOR THE SUCCESSIVE MONTHS, JANUARY TO DECEMBER, RUN FROM LEFT TO RIGHT.

THE LENGTH OF A VERTICAL COLUMN REPRESENTS THE AVERAGE MONTHLY RAINFALL ACCORDING TO THE SCALE GIVEN BELOW

SCALE OF MILES
50 0 100 200 300
STATIONS
SCALE
INS
CMS
38
36
34
32
30
28
26
24
22
20
18
16
14
12
10
8
6
4
2
0
1
2
4
12
13
14
15
16
17
21
27
28
31
32
33
34
36
37
39
40
41
42
43
44
46
48
52-53
54
55
56-57
58-59
54-55
60-61
62-63
66-67
68-69
74
84
85
86-87
89-90
91
92
93
94
95
96
97
SCALE OF MILES
10 5 0 10 20 30

Central Weather Bureau, Melbourne

R.G.S./41.



ISSUED UNDER THE AUTHORITY OF THE MINISTER OF STATE FOR THE DEPARTMENT OF AIR
BY H. N. WARREN DIRECTOR OF METEOROLOGICAL SERVICES

9 A.M.

LOCAL MEAN TIME

WIND ROSES

SHOWING MONTHLY FREQUENCY
DISTRIBUTION OF WIND DIRECTIONS
TO EIGHT POINTS OF THE COMPASS

DARWIN
GROOTE EY
THURSDAY IS
WYNDHAM
DALY WATERS
BROOME
HALLS CREEK
CLONCURRY
TOWNSVILLE
ONSLOW
MUNDIWINDI
ALICE SPRINGS
ROCKHAMPTON
CHARLEVILLE
EUCLA
WILLIAM CREEK
GERALDTON
BRISBANE
KALGOORLIE
CEDUNA
BOURKE
PERTH
ADELAIDE
SYDNEY
ESPERANCE
CANBERRA
MT GAMBIER
MELBOURNE
EDDYSTONE
CAPE SORELL
HOBART
CAPE BRUNI

10 5 0 10 20 30 40 50 60 70 80 90 100
SCALE OF FREQUENCIES PER CENT

EXPLANATION

The sides of the octagons face towards the cardinal and semi-cardinal points. Projecting from each side are twelve columns representing the twelve months of the year, and the lengths of the columns are proportional to the percentage frequencies of the winds from the given direction in the successive months, working round clockwise from January to December. The scale is shown above, and the outer octagons have been drawn, separated from the inner octagons by a distance representing 12½%. The tops of the columns would all be on these outer octagons if winds from the eight directions were equally frequent and there were no calms. The percentage frequency of calms in the 12 months is shown by figures within the octagons. Small dashes within the inner octagons indicate months when the percentage of winds from that direction is practically zero.

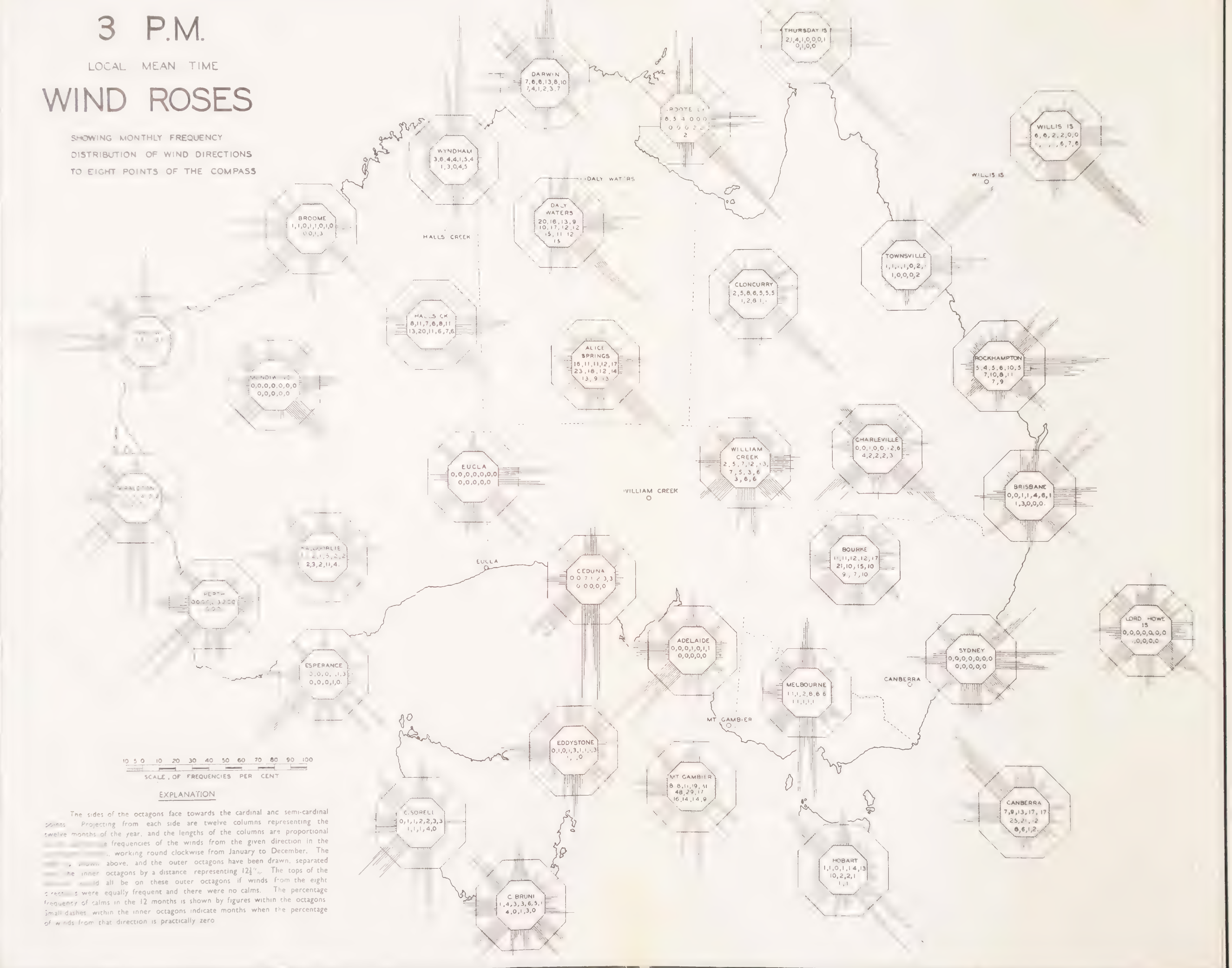
ISSUED UNDER THE AUTHORITY OF THE MINISTER OF STATE FOR THE DEPARTMENT OF AIR
BY H. N. WARREN DIRECTOR OF METEOROLOGICAL SERVICES

3 P.M.

LOCAL MEAN TIME

WIND ROSES

SHOWING MONTHLY FREQUENCY
DISTRIBUTION OF WIND DIRECTIONS
TO EIGHT POINTS OF THE COMPASS


DARWIN 7,6,6,13,8,10 7,4,1,2,3,7
THURSDAY IS 2,1,4,1,0,0,0,1 0,1,0,0
ROOTE EY 6,5,4,0,0,0 0,0,0,2,2 2
WYNDHAM 3,6,4,4,1,5,4 1,3,0,4,5
WILLIS IS 6,6,2,2,0,0 ,6,7,6
WILLIS IS
DALY WATERS
DALY WATERS 20,16,13,9 10,17,12,12 15,11,12 15
BROOME 1,1,0,1,1,0,1,0 0,0,1,3
HALLS CREEK
TOWNSVILLE 1,1,1,0,2, 1,0,0,0,2
CLONCURRY 2,5,8,6,5,5,5 1,2,8,1
HALLS CK 8,11,7,6,8,11 13,20,11,6,7,6
ALICE SPRINGS 16,11,11,12,17 23,18,12,14 13,9,13
ROCKHAMPTON 5,4,5,6,10,5 7,10,8,11 7,9
0,0,0,0,0,0,0,0 0,0,0,0,0
CHARLEVILLE 0,0,1,0,0,12,6 4,2,2,2,3
WILLIAM CREEK 2,5,7,12,13, 7,5,3,6 3,6,6
EUCLA 0,0,0,0,0,0,0 0,0,0,0,0
WILLIAM CREEK
BRISBANE 0,0,1,1,4,6,1 1,3,0,0,0.
2,1,5,2,2 2,3,2,11,4.
BOURKE 11,11,12,12,17 21,10,15,10 9,7,10
EUCLA
CEDUNA 0 0 7 1 2 3,3 0 0 0,0,0
PERTH
LORD HOWE IS 0,0,0,0,0,0,0 0,0,0,0
ADELAIDE 0,0,0,1,0,1,1 0,0,0,0,0
SYDNEY 0,0,0,0,0,0,0 0,0,0,0,0
ESPERANCE 0,0,0,1,3 0,0,0,1,0.
MELBOURNE 1,1,1,2,8,6,6 1,1,1,1,1
CANBERRA
MT GAMBIER
EDDYSTONE 0,1,0,1,3,1,1,3 0
MT GAMBIER 8,8,11,19,31 48,29,17 16,14,14,9
CANBERRA 7,9,13,17,17 25,21,12 8,6,1,2.
C. SORELL 0,1,1,2,2,3,3 1,1,1,4,0
HOBART 1,1,0,1,14,13 10,2,2,1 1,1
C. BRUNI 1,4,3,3,6,5,1 4,0,1,3,0
10 5 0 10 20 30 40 50 60 70 80 90 100

SCALE, OF FREQUENCIES PER CENT

EXPLANATION

The sides of the octagons face towards the cardinal and semi-cardinal points. Projecting from each side are twelve columns representing the twelve months of the year, and the lengths of the columns are proportional [illegible] frequencies of the winds from the given direction in the [illegible], working round clockwise from January to December. The [illegible] shown above, and the outer octagons have been drawn, separated [illegible] the inner octagons by a distance representing 12½%. The tops of the [illegible] would all be on these outer octagons if winds from the eight directions were equally frequent and there were no calms. The percentage frequency of calms in the 12 months is shown by figures within the octagons. Small dashes within the inner octagons indicate months when the percentage of winds from that direction is practically zero.

The area affected and the period of duration of the longest heat waves in Australia are shown in the map and diagram on page 34.

(v) *Tabulated Data for Selected Climatological Stations in Australia.* The following tables show normal mean temperature, extreme temperature and normal rainfall for each month for selected climatological stations in each State :—

TABULATED DATA FOR SELECTED CLIMATOLOGICAL STATIONS : NEW SOUTH WALES.

Particulars.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Year.
GRAFTON.													
Normal Mean Temperature—													
Maximum °F.	89.1	87.9	85.2	81.7	76.1	70.9	70.6	73.3	78.6	82.6	85.7	88.0	80.8
Minimum ,,	66.4	66.3	63.7	57.9	51.0	45.7	43.3	45.1	50.4	56.3	61.3	64.5	56.0
Extreme Temperature—													
Maximum .. °F.	114.0	113.0	108.0	97.0	91.0	88.0	87.5	95.0	99.0	105.0	111.0	113.5	114.0
Minimum .. ,,	50.0	50.0	41.0	33.0	33.0	28.0	24.9	24.0	32.0	35.0	43.0	45.0	24.0
Normal Rainfall ins.	4.56	4.19	3.72	3.15	2.77	2.44	2.03	0.93	1.83	2.23	3.31	3.52	34.68
ARMIDALE.													
Normal Mean Temperature—													
Maximum °F.	80.8	79.5	75.3	68.4	61.2	55.3	54.0	57.2	63.8	70.4	76.1	79.3	68.4
Minimum ,,	56.5	55.8	52.1	45.6	39.2	34.9	33.8	34.4	38.9	45.1	50.3	54.3	45.1
Extreme Temperature—													
Maximum .. °F.	103.4	95.0	94.0	86.2	80.0	76.0	68.2	78.2	83.0	90.5	97.5	99.8	103.4
Minimum .. ,,	40.0	38.0	31.0	25.0	20.0	17.0	14.0	18.0	22.0	26.0	32.0	36.0	14.0
Normal Rainfall ins.	3.88	2.81	2.26	1.87	1.46	2.33	2.11	1.54	2.09	2.35	2.87	3.41	28.98
PORT MACQUARIE.													
Normal Mean Temperature—													
Maximum °F.	78.6	78.7	77.1	73.2	68.8	64.9	64.0	65.8	68.5	71.2	74.0	76.4	71.8
Minimum ,,	64.4	64.3	61.8	56.8	50.8	46.3	44.8	45.4	49.2	54.8	59.0	62.5	55.0
Extreme Temperature—													
Maximum .. °F.	104.0	105.8	97.0	92.8	84.0	79.6	84.0	91.3	89.4	97.4	104.0	98.8	105.8
Minimum .. ,,	51.0	48.0	43.5	40.0	34.6	30.5	29.5	31.0	32.5	38.0	41.2	48.0	29.5
Normal Rainfall ins.	4.89	6.48	6.45	7.37	5.76	5.08	4.35	2.64	3.55	3.67	3.22	3.98	57.44
BROKEN HILL.													
Normal Mean Temperature—													
Maximum °F.	90.5	90.2	84.6	74.7	66.7	59.9	59.5	63.6	70.1	77.3	83.3	88.6	75.8
Minimum ,,	64.5	64.7	60.1	52.6	47.1	42.5	41.2	43.2	47.6	52.9	58.1	62.6	53.1
Extreme Temperature—													
Maximum .. °F.	114.9	115.9	113.9	99.9	87.8	79.0	80.0	84.0	94.0	103.9	110.9	113.9	115.9
Minimum .. ,,	45.0	42.0	40.0	34.0	30.5	27.0	28.5	29.0	33.0	36.0	40.0	41.8	27.0
Normal Rainfall ins.	0.59	0.96	0.56	0.65	0.94	0.92	0.72	0.63	0.67	0.84	0.86	0.86	9.20
DUBBO.													
Normal Mean Temperature—													
Maximum °F.	92.1	91.3	85.7	76.9	68.0	61.0	59.7	63.5	70.3	78.5	85.3	89.6	76.8
Minimum ,,	63.8	63.8	58.9	50.8	43.5	39.3	37.5	38.3	42.7	49.3	56.4	61.3	50.5
Extreme Temperature—													
Maximum .. °F.	114.9	113.9	104.5	97.9	90.9	79.9	77.8	87.0	92.9	104.9	110.0	115.4	115.4
Minimum .. ,,	40.9	35.7	37.7	30.0	23.4	19.9	16.9	17.9	20.9	27.9	30.9	37.9	16.9
Normal Rainfall ins.	2.00	1.49	1.99	1.77	1.44	2.24	1.87	1.51	1.31	1.49	1.93	1.87	20.91

TABULATED DATA FOR SELECTED CLIMATOLOGICAL STATIONS: NEW SOUTH WALES—*continued.*

Particulars.		Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Year.
NEWCASTLE.														
Normal Mean Temperature—														
Maximum	°F.	77.6	77.7	76.1	72.2	67.2	62.9	61.7	64.0	68.1	71.3	73.9	76.0	70.7
Minimum	,,	66.6	67.1	64.7	59.5	53.7	49.5	47.7	48.8	52.6	57.2	61.3	64.3	57.7
Extreme Temperature—														
Maximum ..	°F.	112.0	105.3	101.5	94.9	85.0	80.0	79.4	88.3	96.4	100.0	105.0	108.0	112.0
Minimum ..	,,	54.5	54.0	50.0	42.0	41.0	38.0	37.5	37.0	39.0	42.0	47.8	49.0	37.0
Normal Rainfall	ins.	3.01	2.96	3.84	5.33	4.64	3.66	4.44	2.34	2.97	2.51	2.21	3.45	41.36
BATHURST.														
Normal Mean Temperature—														
Maximum	°F.	83.9	83.7	78.8	69.9	62.1	55.2	53.9	57.4	64.2	70.9	76.7	81.6	69.9
Minimum	,,	55.6	55.5	51.0	44.0	38.2	34.8	34.0	34.5	38.1	43.4	48.4	53.5	44.2
Extreme Temperature—														
Maximum ..	°F.	112.0	106.4	100.2	90.0	80.0	71.0	70.0	76.4	86.0	96.0	103.5	107.7	112.9
Minimum ..	,,	37.0	35.0	30.0	22.0	20.0	15.7	13.0	18.7	21.0	25.0	31.0	35.0	13.0
Normal Rainfall	ins.	2.18	1.73	1.99	1.51	1.39	1.86	2.07	1.68	1.52	2.10	2.04	2.49	22.56
LEETON.														
Normal Mean Temperature—														
Maximum	°F.	88.9	88.7	82.6	72.6	64.8	57.7	56.8	60.3	66.8	73.8	81.2	86.4	73.4
Minimum	,,	63.2	63.4	59.0	51.2	45.0	40.5	38.9	40.5	44.1	49.7	55.6	60.8	51.0
Extreme Temperature—														
Maximum ..	°F.	117.0	110.5	107.0	94.5	82.4	74.5	72.0	81.9	92.5	103.5	107.0	112.0	117.0
Minimum ..	,,	44.0	41.2	40.0	33.0	29.9	24.9	25.3	25.0	26.5	34.0	35.5	41.8	24.9
Normal Rainfall	ins.	1.22	0.86	1.03	1.47	1.38	1.84	1.36	1.67	1.31	1.49	1.26	1.24	16.13
JERVIS BAY.(*a*)														
Normal Mean Temperature—														
Maximum	°F.	74.5	75.0	73.3	68.8	64.4	60.2	58.9	61.0	64.3	67.7	70.2	73.0	67.6
Minimum	,,	63.0	64.0	62.7	58.5	53.8	50.5	48.6	49.5	52.2	55.3	58.3	61.3	56.5
Extreme Temperature—														
Maximum ..	°F.	109.0	100.0	98.0	89.0	83.0	77.0	75.0	80.0	87.0	96.0	96.0	100.0	109.0
Minimum ..	,,	43.0	50.0	46.0	42.0	39.0	37.0	33.0	31.0	40.0	41.0	47.0	42.0	31.0
Normal Rainfall	ins.	4.11	3.25	4.46	5.07	5.22	4.32	4.89	2.72	3.06	2.57	2.64	3.82	46.13
ALBURY.														
Normal Mean Temperature—														
Maximum	°F.	89.9	90.4	84.3	73.6	64.9	57.4	56.4	60.4	67.2	73.8	81.3	87.4	73.9
Minimum	,,	59.8	60.2	55.2	47.8	42.3	39.3	38.2	39.9	43.2	47.7	52.9	57.5	48.7
Extreme Temperature—														
Maximum ..	°F.	117.3	114.3	107.3	94.8	83.0	76.0	74.0	79.0	94.8	101.5	107.0	112.6	117.3
Minimum ..	,,	39.0	42.0	39.0	30.0	28.0	25.7	25.0	26.0	29.0	30.0	33.0	40.0	25.0
Normal Rainfall	ins.	1.59	1.95	1.81	1.96	2.28	3.32	2.91	3.01	2.30	2.52	1.76	2.25	27.66
COOMA.														
Normal Mean Temperature—														
Maximum	°F.	78.8	79.0	73.8	65.0	57.3	50.9	50.4	54.5	61.0	67.5	72.6	77.2	65.7
Minimum	,,	52.2	52.4	48.3	41.7	35.3	31.7	30.2	31.5	36.1	40.9	45.8	50.1	41.3
Extreme Temperature—														
Maximum ..	°F.	112.0	107.0	104.6	92.7	77.7	69.2	72.9	75.7	86.9	95.7	102.1	110.0	112.0
Minimum ..	,,	29.8	33.0	28.2	22.8	13.0	13.4	11.0	12.0	14.3	22.0	25.8	28.8	11.0
Normal Rainfall	ins.	2.34	1.86	1.88	1.46	1.11	1.22	1.27	0.98	1.27	1.51	1.72	2.23	18.85

(*a*) Australian Capital Territory.

TABULATED DATA FOR SELECTED CLIMATOLOGICAL STATIONS: VICTORIA.

Particulars.		Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Year.
							MILDURA.							
Normal Mean Temperature—														
Maximum	°F.	89.8	90.0	84.4	74.5	66.9	60.4	59.5	63.9	69.9	76.5	83.2	88.2	75.6
Minimum	,,	61.0	61.7	57.2	50.5	45.6	41.3	40.5	42.5	46.1	50.9	55.4	59.6	51.0
Extreme Temperature—														
Maximum ..	°F.	123.5	118.0	112.0	99.0	90.0	80.0	78.0	86.9	95.0	104.0	113.0	121.5	123.5
Minimum ..	,,	40.0	43.0	37.0	34.0	27.0	26.0	24.0	29.0	29.0	34.0	35.0	40.0	24.0
Normal Rainfall	ins.	0.73	0.90	0.70	0.55	1.01	1.05	0.91	1.01	0.96	1.00	0.84	0.71	10.37
							BENALLA.							
Normal Mean Temperature—														
Maximum	°F.	87.6	88.7	82.4	72.3	64.3	56.5	55.7	58.9	65.1	72.4	79.5	84.8	72.3
Minimum	,,	58.9	59.6	55.1	48.0	42.6	39.1	38.2	39.7	43.6	48.3	52.1	56.5	48.5
Extreme Temperature—														
Maximum ..	°F.	114.0	112.0	108.0	97.0	89.0	70.0	70.0	76.0	88.0	102.0	104.0	111.0	114.0
Minimum ..	,,	40.0	37.0	36.0	32.0	26.0	25.0	27.0	27.9	30.0	33.0	36.0	38.0	25.0
Normal Rainfall	ins.	1.58	1.66	1.60	1.99	2.30	3.09	2.78	2.72	2.36	2.41	1.65	1.77	25.91
							BENDIGO.							
Normal Mean Temperature—														
Maximum	°F.	83.0	83.9	78.1	68.4	61.3	54.8	54.2	57.0	62.5	68.9	75.2	80.5	69.0
Minimum	,,	56.5	58.3	54.0	48.2	43.7	40.7	39.4	40.2	43.0	46.7	50.9	54.9	48.0
Extreme Temperature—														
Maximum ..	°F.	117.4	111.6	104.7	94.7	80.0	77.3	73.0	75.7	90.0	99.7	106.5	111.5	117.4
Minimum ..	,,	37.0	40.0	38.0	33.4	27.3	23.9	23.5	26.0	29.0	32.0	35.0	37.0	23.5
Normal Rainfall	ins.	1.14	1.50	1.27	1.49	1.97	2.26	2.21	2.11	2.04	1.70	1.25	1.33	20.27
							HORSHAM.							
Normal Mean Temperature—														
Maximum	°F.	85.1	86.3	80.2	70.7	63.0	56.6	56.0	59.0	64.1	70.2	77.2	82.7	70.9
Minimum	,,	55.2	55.9	51.9	47.0	42.9	40.2	38.8	39.9	41.9	45.1	49.6	53.2	46.8
Extreme Temperature—														
Maximum ..	°F.	120.0	113.0	108.0	97.0	87.0	74.0	71.0	78.0	94.0	100.0	108.0	115.0	120.0
Minimum ..	,,	39.0	37.0	35.0	31.0	25.0	22.0	21.0	24.0	24.0	25.0	29.0	34.0	21.0
Normal Rainfall	ins.	0.75	1.21	0.74	1.23	1.78	1.98	1.89	1.90	1.98	1.48	1.26	1.37	17.57
							BALLARAT.							
Normal Mean Temperature—														
Maximum	°F.	75.7	76.9	71.6	63.0	56.3	50.4	49.8	52.5	57.1	62.4	67.4	72.5	63.0
Minimum	,,	50.5	52.9	50.1	45.8	42.6	39.5	38.4	39.4	41.2	43.6	46.0	49.3	44.9
Extreme Temperature—														
Maximum ..	°F.	108.5	104.9	102.1	91.2	75.0	63.0	63.0	69.6	83.0	92.5	100.0	102.0	108.5
Minimum ..	,,	36.0	36.2	31.0	31.0	27.0	23.0	26.0	26.3	26.6	29.0	31.5	35.0	23.0
Normal Rainfall	ins.	1.26	1.79	1.83	2.13	2.43	2.67	2.68	2.92	2.84	2.41	2.08	2.34	27.38
							BAIRNSDALE.							
Normal Mean Temperature—														
Maximum	°F.	75.3	76.1	73.0	67.5	62.5	57.5	57.0	59.5	63.2	67.5	70.6	74.0	67.0
Minimum	,,	53.5	54.5	51.7	46.9	42.5	38.8	38.1	39.6	42.7	46.1	49.0	52.4	46.3
Extreme Temperature—														
Maximum ..	°F.	112.0	109.0	105.5	95.0	86.0	75.0	76.0	84.0	92.6	101.0	103.0	111.0	112.0
Minimum ..	,,	35.0	39.0	32.0	29.0	25.0	22.0	21.0	19.0	26.0	27.0	30.0	32.0	19.0
Normal Rainfall	ins.	2.48	2.09	2.64	2.02	1.59	2.16	2.06	1.73	2.08	2.68	2.19	2.63	26.35

TABULATED DATA FOR SELECTED CLIMATOLOGICAL STATIONS : QUEENSLAND.

Particulars.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Year.
CAIRNS.													
Normal Mean Temperature—													
Maximum °F.	89.7	89.0	87.1	84.9	81.6	78.8	78.1	79.5	82.6	85.6	87.9	89.7	84.5
Minimum ,,	74.2	73.9	72.6	70.0	66.2	63.5	61.0	61.1	63.8	67.4	70.4	72.9	68.1
Extreme Temperature—													
Maximum .. °F.	109.8	108.0	100.0	94.5	92.0	92.1	95.1	98.1	94.1	98.1	99.1	105.0	109.8
Minimum ,,	63.5	64.0	59.8	57.0	52.2	44.6	43.0	43.2	46.0	54.5	52.0	60.2	43.0
Normal Rainfall ins.	16.51	17.00	17.59	10.76	4.37	2.87	1.56	1.46	1.43	2.40	3.05	7.35	86.35
TOWNSVILLE.													
Normal Mean Temperature—													
Maximum °F.	87.3	87.0	86.6	84.7	81.2	77.3	76.0	77.6	80.3	83.1	85.2	87.0	82.8
Minimum ,,	76.2	75.6	73.9	70.6	65.4	61.9	59.8	61.5	65.8	70.5	73.8	75.6	69.2
Extreme Temperature—													
Maximum .. °F.	102.4	110.2	98.0	97.0	88.5	86.5	85.0	89.0	92.5	94.7	99.5	101.1	110.2
Minimum .. ,,	68.2	64.5	65.4	53.9	49.7	47.0	45.3	48.0	52.0	60.2	64.2	66.0	45.3
Normal Rainfall ins.	10.03	9.90	5.15	2.57	0.92	1.41	0.77	0.60	0.49	1.19	2.03	4.63	39.69
CLONCURRY.													
Normal Mean Temperature—													
Maximum °F.	98.7	96.3	94.6	89.9	82.9	77.3	76.4	81.4	88.4	95.1	98.6	100.4	90.0
Minimum ,,	76.5	75.4	73.0	66.9	59.7	54.1	51.5	54.3	61.0	68.2	73.5	76.2	65.9
Extreme Temperature—													
Maximum .. °F.	127.5	115.5	110.5	108.0	98.5	99.1	96.0	102.5	106.0	112.0	118.5	125.5	127.5
Minimum .. ,,	59.3	58.0	53.3	48.0	41.3	32.0	34.2	34.5	40.5	49.8	54.0	50.0	32.0
Normal Rainfall ins.	4.73	3.96	1.86	0.62	0.48	0.80	0.23	0.12	0.15	0.44	1.59	1.90	16.88
MACKAY.													
Normal Mean Temperature—													
Maximum °F.	86.2	85.5	83.6	80.7	76.1	72.2	71.0	72.8	77.0	81.3	83.9	86.2	79.7
Minimum ,,	73.6	73.2	71.2	66.6	60.8	56.2	53.4	54.8	59.9	65.5	69.4	72.3	64.7
Extreme Temperature—													
Maximum .. °F.	99.8	99.4	98.0	94.0	88.8	85.9	86.0	87.0	92.0	97.0	97.5	99.9	99.9
Minimum .. ,,	60.1	60.3	56.0	49.2	41.6	37.0	35.1	36.1	39.6	44.0	46.6	60.0	35.1
Normal Rainfall ins.	13.56	12.65	10.95	4.64	3.36	2.75	1.57	1.12	1.14	1.55	3.12	6.75	63.16
LONGREACH.													
Normal Mean Temperature—													
Maximum °F.	99.6	96.9	94.1	87.8	80.4	74.3	73.2	77.9	85.4	92.8	97.0	99.7	88.3
Minimum ,,	73.3	71.7	68.1	60.1	52.1	46.7	44.3	46.5	53.7	61.5	67.5	71.5	59.8
Extreme Temperature—													
Maximum .. °F.	118.3	113.4	113.0	103.0	96.8	92.0	92.0	96.8	104.2	109.2	114.5	115.6	118.3
Minimum .. ,,	43.9	55.1	48.2	38.1	35.1	26.7	26.7	31.0	31.0	39.0	41.0	43.9	26.7
Normal Rainfall ins.	2.31	3.12	2.10	1.01	0.52	0.94	0.80	0.30	0.52	0.84	1.26	1.82	15.54
ROCKHAMPTON.													
Normal Mean Temperature—													
Maximum °F.	90.0	88.7	87.2	84.2	79.3	74.4	73.7	76.7	81.7	85.9	88.5	90.0	83.4
Minimum ,,	72.3	72.1	69.8	64.8	58.3	54.0	51.2	52.9	58.3	63.8	68.0	70.9	63.0
Extreme Temperature—													
Maximum .. °F.	106.8	105.2	104.8	98.0	94.3	88.2	88.8	95.9	100.2	102.8	107.9	111.6	111.6
Minimum .. ,,	60.0	60.8	50.3	43.4	39.8	32.7	34.6	36.3	39.8	43.0	54.0	59.2	32.7
Normal Rainfall ins.	6.70	7.28	3.54	2.66	1.26	2.80	1.77	0.82	0.94	1.99	2.63	4.97	37.36

TABULATED DATA FOR SELECTED CLIMATOLOGICAL STATIONS: QUEENSLAND—*continued.*

Particulars.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Year.
CHARLEVILLE.													
Normal Mean Temperature—													
Maximum °F.	97.6	96.1	91.7	84.5	76.4	69.3	68.3	72.9	80.4	88.2	93.6	96.4	84.6
Minimum ,,	70.8	70.1	65.1	55.7	47.2	42.3	40.1	42.1	49.0	57.7	64.4	68.5	56.1
Extreme Temperature—													
Maximum .. °F.	116.6	115.0	110.0	101.8	92.0	87.8	86.5	93.7	102.0	109.8	117.0	118.0	118.0
Minimum . ,,	52.4	50.0	41.0	34.0	27.5	23.0	23.0	24.0	29.0	34.5	40.0	48.0	23.0
Normal Rainfall ins.	2.65	2.36	1.54	0.95	0.69	1.46	1.32	0.75	0.95	1.02	1.68	2.60	17.97
TOOWOOMBA.													
Normal Mean Temperature—													
Maximum °F.	82.7	81.0	78.2	73.5	67.2	62.0	61.1	64.5	70.5	76.2	80.2	82.2	73.3
Minimum ,,	61.2	61.0	58.7	52.5	46.6	42.4	40.7	41.9	46.8	52.3	56.6	59.5	51.7
Extreme Temperature—													
Maximum .. °F.	103.6	100.7	99.0	88.2	84.2	80.5	78.2	86.0	89.5	96.0	101.0	105.0	105.0
Minimum .. ,,	45.5	46.0	33.0	31.0	29.6	22.0	22.5	25.0	30.0	32.4	39.4	42.8	22.0
Normal Rainfall ins.	5.15	4.29	3.36	2.62	1.85	2.54	2.06	1.16	1.69	2.39	3.34	4.74	35.19

TABULATED DATA FOR SELECTED CLIMATOLOGICAL STATIONS: SOUTH AUSTRALIA.

STREAKY BAY.													
Normal Mean Temperature—													
Maximum °F.	84.8	85.2	81.8	74.2	67.9	62.0	61.0	63.3	67.7	73.2	78.6	82.0	73.5
Minimum ,,	60.1	60.5	58.5	54.1	51.4	48.2	46.9	47.8	49.2	52.4	55.6	58.3	53.6
Extreme Temperature—													
Maximum .. °F.	114.2	114.2	109.0	96.0	88.3	79.0	73.0	83.0	91.0	104.2	113.8	117.0	117.0
Minimum .. ,,	46.2	44.8	43.5	41.0	34.0	31.0	31.2	32.2	33.9	38.0	39.5	42.5	31.0
Normal Rainfall ins.	0.30	0.68	0.57	0.76	1.72	2.64	2.29	2.19	1.21	1.01	0.69	0.56	14.62
PORT PIRIE.													
Normal Mean Temperature—													
Maximum °F.	89.2	89.6	86.4	76.8	69.5	62.8	61.7	64.8	71.2	77.1	82.9	86.2	76.5
Minimum ,,	62.9	63.2	61.1	55.2	50.9	46.5	45.5	46.5	49.2	53.4	57.4	60.9	54.4
Extreme Temperature—													
Maximum .. °F.	117.1	113.0	111.0	99.0	85.0	77.0	76.0	83.0	95.0	103.0	109.0	114.2	117.1
Minimum .. ,,	48.2	48.2	47.0	41.0	36.0	30.0	31.0	33.0	35.0	37.0	43.0	46.0	30.0
Normal Rainfall ins.	0.75	0.83	0.70	0.78	1.40	1.54	1.25	1.48	1.23	1.17	0.92	0.94	12.99
YONGALA.													
Normal Mean Temperature—													
Maximum °F.	85.9	85.8	80.7	70.5	62.4	55.5	54.5	57.6	63.8	71.2	78.3	83.5	70.8
Minimum ,,	55.8	56.3	51.7	45.1	40.9	37.6	36.1	36.9	39.4	43.4	49.0	53.7	45.5
Extreme Temperature—													
Maximum .. °F.	111.2	107.6	105.0	95.0	83.0	71.8	72.4	79.2	91.0	98.2	104.0	107.0	111.2
Minimum .. ,,	38.0	39.0	34.0	28.4	23.5	19.0	19.0	24.0	25.8	24.0	30.2	35.0	19.0
Normal Rainfall ins.	0.80	0.86	0.60	0.88	1.37	1.53	1.62	1.87	1.54	1.23	1.10	1.16	14.56
MT. GAMBIER.													
Normal Mean Temperature—													
Maximum °F.	74.2	75.9	72.7	66.5	61.4	57.0	56.2	58.1	61.1	65.0	68.3	71.9	65.7
Minimum ,,	53.5	54.8	52.4	49.5	46.4	43.5	42.4	43.1	45.1	46.9	49.6	52.0	48.3
Extreme Temperature—													
Maximum .. °F.	112.6	109.6	106.3	98.2	82.6	72.0	70.5	77.0	89.0	95.0	104.0	107.6	112.6
Minimum .. ,,	33.0	34.0	33.0	29.8	26.2	23.4	23.7	27.5	28.4	30.4	31.0	34.0	23.4
Normal Rainfall ins.	0.93	1.22	1.17	2.14	2.90	3.55	3.49	3.44	2.91	2.10	1.56	1.45	26.

TABULATED DATA FOR SELECTED CLIMATOLOGICAL STATIONS : WESTERN AUSTRALIA.

Particulars.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Year.
WYNDHAM.													
Normal Mean Temperature—													
Maximum °F.	95.9	95.5	95.3	94.7	90.1	85.8	85.0	88.5	93.5	96.9	98.5	97.6	93.1
Minimum ,,	80.2	79.7	79.5	77.2	72.4	68.0	66.2	69.5	74.8	79.7	81.4	81.2	75.8
Extreme Temperature—													
Maximum .. °F.	113.5	108.3	106.0	104.6	102.4	97.5	96.0	102.0	106.0	110.2	111.6	109.5	113.5
Minimum .. ,,	67.5	62.0	65.0	63.5	55.2	50.0	48.0	56.0	60.1	65.0	68.0	67.0	48.0
Normal Rainfall ins.	6.79	6.30	5.22	0.50	0.14	0.20	0.08	0.02	0.05	0.38	1.55	3.92	25.15
GERALDTON.													
Normal Mean Temperature—													
Maximum °F.	84.5	85.2	83.6	80.5	74.2	69.7	67.7	68.8	71.4	73.6	78.5	82.0	76.6
Minimum ,,	66.3	66.5	65.0	60.9	56.9	53.8	51.7	52.1	53.0	55.4	60.0	63.4	58.7
Extreme Temperature—													
Maximum .. °F.	112.0	115.5	110.8	102.8	93.8	83.8	81.0	86.0	96.5	104.6	108.8	113.0	115.5
Minimum .. ,,	48.0	51.0	47.0	41.8	38.6	33.6	33.4	37.3	38.3	41.0	44.0	48.0	33.4
Normal Rainfall ins.	0.30	0.42	0.78	0.89	2.58	4.84	3.77	2.57	1.21	0.79	0.27	0.16	18.58
KALGOORLIE.													
Normal Mean Temperature—													
Maximum °F.	93.2	93.0	86.3	78.4	70.1	63.6	62.5	66.0	73.6	79.0	86.3	91.1	78.6
Minimum ,,	64.2	64.4	61.3	55.2	48.9	44.6	42.9	43.9	48.2	52.7	58.3	62.3	53.9
Extreme Temperature—													
Maximum .. °F.	114.4	115.0	111.0	102.5	92.0	81.8	81.0	87.0	96.0	102.3	110.6	113.0	115.0
Minimum .. ,,	47.1	48.0	41.6	37.0	34.6	31.0	30.0	30.0	31.6	33.4	38.2	46.0	30.0
Normal Rainfall ins.	0.69	0.65	1.26	0.97	0.98	0.98	0.81	0.88	0.38	0.58	0.61	0.67	9.46
COLLIE.													
Normal Mean Temperature—													
Maximum °F.	86.4	85.7	80.4	74.3	65.9	61.3	59.8	61.0	64.8	68.8	77.2	83.0	72.4
Minimum ,,	55.6	54.9	52.5	47.1	42.9	40.4	39.1	39.8	42.5	45.3	49.7	53.1	46.9
Extreme Temperature—													
Maximum .. °F.	109.0	110.2	105.3	98.0	86.8	76.0	73.0	79.0	86.6	96.4	101.8	106.2	110.2
Minimum .. ,,	37.7	35.2	32.3	29.6	28.0	24.8	25.0	26.2	28.0	31.0	32.6	35.0	24.8
Normal Rainfall ins.	0.67	0.70	0.98	1.85	5.24	6.91	7.84	6.10	4.44	3.06	1.12	0.69	39.60
ALBANY.													
Normal Mean Temperature—													
Maximum °F.	73.8	74.2	72.3	70.3	65.9	62.2	60.9	61.7	63.6	65.7	69.2	72.0	67.6
Minimum ,,	58.5	58.8	57.5	54.5	50.7	47.8	46.3	46.6	48.3	50.0	53.6	56.5	52.4
Extreme Temperature—													
Maximum .. °F.	106.0	112.6	105.4	99.6	95.3	76.2	73.5	81.0	87.0	97.2	106.0	106.0	112.6
Minimum .. ,,	42.3	41.0	38.7	39.5	35.1	35.0	32.2	34.3	34.0	36.2	40.6	41.2	32.2
Normal Rainfall ins.	1.36	1.03	1.78	2.93	5.30	5.44	6.00	5.42	4.25	3.28	1.65	1.23	39.67

TABULATED DATA FOR SELECTED CLIMATOLOGICAL STATIONS : TASMANIA.

Particulars.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Year.
BURNIE.													
Normal Mean Temperature—													
Maximum °F.	66.7	66.9	64.6	61.1	57.9	54.3	52.9	53.7	55.7	57.9	61.6	65.3	59.9
Minimum ,,	50.9	52.9	49.4	47.4	44.5	43.2	40.5	41.3	41.8	43.7	47.1	49.7	46.1
Extreme Temperature—													
Maximum .. °F.	83.5	80.3	80.0	71.3	70.5	60.4	59.8	61.3	63.0	72.7	80.4	85.0	85.0
Minimum .. ,,	39.5	38.7	36.0	35.5	31.3	32.8	30.5	30.0	31.0	32.0	36.0	36.5	30.0
Normal Rainfall ins.	1.52	1.73	1.88	3.23	3.53	4.55	4.92	4.88	3.83	3.65	2.62	2.65	38.99
LAUNCESTON.													
Normal Mean Temperature—													
Maximum °F.	75.8	76.7	72.0	65.3	59.5	54.6	53.7	56.3	60.0	64.2	69.2	73.1	65.0
Minimum ,,	52.1	52.7	49.7	45.3	41.1	38.4	36.9	38.4	41.4	44.1	47.2	50.3	44.8
Extreme Temperature—													
Maximum .. °F.	100.0	101.0	98.5	84.0	74.8	66.2	66.2	68.0	75.0	88.8	92.0	97.6	101.0
Minimum .. ,,	34.0	33.7	31.0	27.0	24.0	22.0	21.0	24.5	24.0	25.0	32.0	31.5	21.0
Normal Rainfall ins.	1.52	1.49	1.71	2.38	2.71	3.11	3.10	3.12	2.81	2.67	1.82	2.12	28.56
ZEEHAN.													
Normal Mean Temperature—													
Maximum °F.	66.3	68.6	65.2	59.9	56.0	52.3	51.6	53.0	55.9	58.9	61.4	64.7	59.5
Minimum ,,	48.0	49.4	47.3	45.1	42.4	39.2	38.2	39.7	41.0	42.8	44.6	46.8	43.7
Extreme Temperature—													
Maximum .. °F.	94.7	99.2	92.5	81.9	74.6	67.3	62.6	69.3	80.0	85.9	94.0	97.0	99.2
Minimum .. ,,	32.2	30.7	28.0	25.0	23.0	20.5	21.1	22.6	23.0	26.6	30.0	31.2	20.5
Normal Rainfall ins.	5.75	4.37	5.77	8.25	8.69	9.21	9.90	10.30	9.34	8.59	7.43	6.46	94.06
SWANSEA.													
Normal Mean Temperature—													
Maximum °F.	70.9	71.4	68.7	63.9	59.4	55.3	54.7	56.5	59.9	63.3	66.8	69.2	63.3
Minimum ,,	52.1	53.0	50.3	46.6	42.4	40.0	38.9	39.5	42.3	44.9	47.9	50.6	45.7
Extreme Temperature—													
Maximum .. °F.	104.1	100.7	99.7	85.0	83.9	67.0	67.0	72.6	80.0	92.0	95.0	100.2	104.1
Minimum .. ,,	35.4	38.0	27.0	31.4	27.0	24.0	26.4	25.0	27.2	29.0	32.0	35.0	24.0
Normal Rainfall ins.	1.60	1.89	2.48	2.30	1.65	2.52	1.97	1.37	1.51	2.17	1.84	2.49	23.79

TABULATED DATA FOR SELECTED CLIMATOLOGICAL STATIONS : NORTHERN TERRITORY.

DARWIN.

Normal Mean Temperature—													
Maximum °F.	89.9	89.8	90.2	91.9	90.1	87.5	86.6	88.5	91.0	92.6	93.2	92.0	90.3
Minimum ,,	77.3	77.1	77.1	75.9	72.6	69.5	67.8	69.7	73.9	77.2	78.2	78.1	74.5
Extreme Temperature—													
Maximum .. °F.	100.0	100.9	102.0	104.0	102.3	98.6	98.0	98.0	102.0	104.9	103.3	102.0	104.9
Minimum .. ,,	68.0	63.0	68.0	65.7	59.2	55.3	55.8	58.1	63.0	68.7	66.8	69.4	55.3
Normal Rainfall ins.	16.18	12.37	11.18	3.08	0.33	0.09	0.01	0.02	0.60	1.93	4.32	8.57	58.68

TABULATED DATA FOR SELECTED CLIMATOLOGICAL STATIONS : NORTHERN TERRITORY—*continued.*

Particulars.		Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Year.
DALY WATERS.														
Normal Mean Temperature—														
Maximum	°F.	97.5	96.6	94.9	93.2	88.0	84.0	83.9	89.1	95.6	100.7	102.1	101.1	93.9
Minimum	„	75.6	74.4	72.6	67.1	61.0	56.9	54.0	56.4	63.9	71.0	74.8	75.9	67.0
Extreme Temperature—														
Maximum ..	°F.	113.0	111.0	110.3	106.2	101.0	97.8	98.0	102.4	108.1	112.0	113.0	116.1	116.1
Minimum ..	„	61.2	55.0	55.2	49.0	43.0	35.1	30.2	39.0	41.2	48.3	56.5	61.2	30.2
Normal Rainfall	ins.	6.77	5.11	4.24	0.94	0.27	0.14	0.03	0.03	0.12	0.68	2.41	3.98	24.72
ALICE SPRINGS.														
Normal Mean Temperature—														
Maximum	°F.	95.3	94.7	90.1	81.3	73.3	67.1	66.9	72.5	80.1	87.6	91.7	94.7	82.9
Minimum	„	69.8	68.3	62.8	53.8	46.0	41.2	38.9	43.2	49.2	58.5	64.0	68.2	55.3
Extreme Temperature—														
Maximum ..	°F.	116.0	114.0	113.0	102.8	101.0	87.0	88.0	96.4	99.7	113.1	115.0	117.0	117.0
Minimum ..	„	50.0	48.0	39.0	35.4	27.0	22.0	19.0	25.0	30.0	36.4	40.0	46.0	19.0
Normal Rainfall	ins.	1.74	1.32	1.09	0.39	0.60	0.52	0.29	0.31	0.28	0.71	1.15	1.53	9.93

(vi) *Frosts.** The Observer's Handbook of the Meteorological Office, London, gives the following definition :—" Injury to the tissues of growing plants is not caused until the temperature has fallen considerably below the freezing point of water (32° F.) and a 'ground frost' is regarded as having occurred when the thermometer on the grass has fallen to 30.4° F. or below ".

In Australia this definition is adopted for stations equipped with terrestrial minimum thermometers. However, these are few in number, so although many rainfall observers record " hoar frost " when seen, for statistical purposes a screen temperature of 36° F. is taken as indicating light frosts at ground level. For heavy frosts a screen temperature of 32° F. is taken.

In America a " killing " frost is defined as a frost " that is generally destructive of vegetation ". A " black frost " is the phenomenon arising out of a combination of low temperature and low humidity causing rupturing of plant cells by expansion, when freezing takes place, of the water which they contain, though frost crystals are not formed on the ground.

The parts of Australia most subject to low temperature are the eastern highlands from about Omeo in Victoria northward to Cambooya and Bybera in Queensland. Most stations in this region experience more than ten nights per month with readings of 32° F. or under for three to five months of the year. In Tasmania, districts on the Central Plateau are subject to such conditions for three to six months of the year. Minimum temperatures of 32° F. are comparatively infrequent in Western Australia except in parts of the south and south-west. In South Australia the Yongala district is much more subject to such temperatures than other parts of the State. Much of the south-east of Queensland has a higher frequency of such readings than South Australia. Generally speaking, the frequency is controlled mainly by altitude, latitude and, to a lesser degree, by proximity to the sea.

Frosts may occur within a few miles of the coastline over the whole continent, except in the Northern Territory and a considerable area of Northern Queensland. Regions subject to frost in all months of the year comprise portions of the tablelands of New South Wales, the Eastern Highlands and parts of the Central Divide and Western district in Victoria, practically the whole of Tasmania and a small area in the south-west of Western Australia.

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* Foley, J. C. Frost in the Australian Region (Bull. 32, 1945).

A map showing the average annual number of frost-free days (i.e. days on which the temperature does not fall below 36° F.) appears on page 35.

Over most of the interior of the continent and on the Highlands in Queensland as far north as the Atherton Plateau frosts appear in April and end in September, but they are infrequent in these months. Minimum temperatures of 32° F. are experienced in most of the sub-tropical interior in June and July.

3. **Humidity.**—After temperature, humidity is the most important element of climate, particularly as regards its effects on human comfort, rainfall supply, and conservation and related problems.

In this publication the humidity of the air has been expressed by the relative humidity, which is the quotient of the vapour pressure divided by the saturation vapour pressure and multiplied by one hundred. The mean 9 a.m. relative humidity, as well as its highest and lowest recorded mean values at 9 a.m., are shown in the tables of climatological data for the capital cities (par. 13). The mean monthly vapour pressure has also been added to these tables.

The annual curve of vapour pressure derived from the normal monthly values for this element is comparable with the maximum and minimum temperature curves, but the relative humidities consisting as they do of the extremes for each month do not show the normal annual fluctuation which would be approximately midway between the extremes.

The order of stations in descending values of 9 a.m. vapour pressure is Darwin, Brisbane, Sydney, Perth, Melbourne, Adelaide, Canberra, Hobart and Alice Springs, while the relative humidity diminishes in the order, Sydney, Canberra, Melbourne, Darwin, Hobart, Brisbane, Perth, Adelaide and Alice Springs.

Further reference to humidity will be found in the section on effective temperature (page 30).

4. **Evaporation.**—(i) *General.* The rate and quantity of evaporation in any territory is influenced by the prevailing temperature, and by atmospheric humidity, pressure and wind movement. In Australia the question is, perhaps, of more than ordinary importance, since in its drier regions water has often to be conserved in "tanks" and dams. The magnitude of the economic loss by evaporation will be appreciated from the map reproduced herein (*see* page 36) which shows that the yearly amount varies from about 20 inches over Western Tasmania to more than 100 inches over the central and north-western parts of Australia. Over an area of 70 per cent. of the continent, comprising most inland districts and extending to the coast in the North-West and Eucla divisions of Western Australia, during no month of the year does the rainfall exceed the evaporation. The central and north-western portions of the continent, comprising 46 per cent. of the total land mass, experience evaporation more than twice as great as their rainfall; it is noteworthy that the vegetation over most of this region is characterised by acacia, semi-desert, shrub steppe and porcupine grass. Since the loss by evaporation depends largely on the exposed area, tanks and dams so designed that the surface shall be a minimum are advantageous. Further, the more they are protected from the direct rays of the sun and from winds by means of suitable tree planting, the less will be the loss by evaporation. These matters are naturally of more than ordinary concern in the drier districts of Australia.

(ii) *Comments on Map of Average Annual Evaporation.* The map of average annual evaporation in Australia (*see* page 36) has been compiled on the basis of records obtained from a number of evaporimeters supplemented by estimates derived from records of saturation deficit by applying the Waite Institute factor of 263.* Some modification of the latter values was found to be necessary in comparison with recordings of evaporimeters.

The standard evaporation tank used in Australia is cylindrical in form and is 36 inches in diameter and 36 inches deep. It is surrounded by a 6-inch water jacket and the whole is sunk into the ground so that the water surface is approximately at ground level.

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* Prescott, J. A. "Atmospheric Saturation Deficit in Australia" (Trans. Royal Society, S.A. Vol. LV., 1931).

Saturation deficit is obtained from readings of dry and wet bulb thermometers exposed in a standard Stevenson thermometer shelter. Saturation deficit is the difference between the vapour pressure indicated by the dry and wet bulb readings, and the saturation vapour pressure corresponding to the dry bulb temperature.

The Waite formula, e = 263 s.d., is not an exact relationship, but it takes account of one of the major factors in evaporation, i.e., the difference between saturation vapour pressures at the mean dew point and at the mean air temperature. Errors in the formula are found to be fairly consistent in considerable areas of Australia and corrections have been applied accordingly. No evaporation records are available north of latitude 20°, and corrections have been extrapolated for these areas. The evaporation stations on which estimates for the tropics have been based are Alice Springs (N.T.) and Winton (Q'land), and to a lesser degree Blackall (Q'land) and Marble Bar (W.A.).

The map thus presents an estimate of evaporation for which allowance should be made for a certain margin of error (perhaps 10 per cent. or so) on the conservative side. In the absence of definite information, such a map should serve a useful purpose as a basis for many climatic studies.

For graphs and tables of mean monthly evaporation and rainfall at certain selected stations *see* Official Year Book No. 37, pp. 34–35.

5. **Rainfall.**—(i) *General.* The rainfall of any region is determined mainly by the direction and route of the prevailing winds, by the varying temperatures of the earth's surface over which they blow, and by its physiographical features.

Australia lies within the zones of the south-east trades and "prevailing" westerly winds. The southern limit of the south-east trade strikes the eastern shores at about 30° south latitude, and, with very few exceptions, the heaviest rains of the Australian continent are precipitated along the Pacific slopes to the north of that latitude, the varying quantities being more or less regulated by the differences in elevation of the shores and of the chain of mountains from the New South Wales northern border to Thursday Island, upon which the rain-laden winds blow. The converse effect is exemplified on the north-west coast of Western Australia, where the prevailing winds, blowing from the interior of the continent instead of from the ocean, result in the lightest coastal rain in Australia.

The westerly winds, which skirt the southern shores, are responsible for the reliable, generally light to moderate rains enjoyed by the south-western portion of Western Australia, the agricultural areas of South Australia, a great part of Victoria, and the whole of Tasmania.

(ii) *Distribution of Rainfall.* The average annual rainfall map of Australia (page 37) shows that the heaviest yearly falls occur on the north coast of Queensland (up to more than 160 inches) and in Western Tasmania (up to 140 inches), while from 50 to over 60 inches are received on parts of the eastern seaboard from Jervis Bay (New South Wales) to the northern part of Cape York Peninsula, also around Darwin (Northern Territory), on the West Kimberley coast, near Cape Leeuwin (Western Australia), about the Australian Alps in eastern Victoria and New South Wales, and on the north-eastern highlands in Tasmania. A great part of the interior of the continent, stretching from the far west of New South Wales and the south-west of Queensland to the vicinity of Shark Bay in Western Australia, has a very low average rainfall of less than 10 inches a year. Between these two regions of heavy and very low rainfall are the extensive areas which experience useful to good rains, and in the southern and eastern parts of which are found the best country and most of the population and primary production.

(iii) *Factors Determining Occurrence, Intensity and Seasonal Distribution of Rainfall.* Reference has already been made to the frequent rains occurring in the north-eastern coastal districts of Queensland with the prevailing south-east trade winds and to similar rains in the west of Tasmania with the prevailing westerly winds. Other rains in Australia are associated mainly with tropical and southern depressions.

The former chiefly affect the northern, eastern, and to some extent the central parts of the continent and operate in an irregular manner during the warmer half of the year, but principally from December to March. They vary considerably in activity and scope from year to year, occasionally developing into severe storms off the east and north-west coasts. Tropical rainstorms sometimes cover an extensive area, half of the continent on occasions receiving moderate to very heavy falls during a period of a few days. Rain is also experienced, with some regularity, with thunderstorms in tropical areas, especially near the coast. All these tropical rains, however, favour mostly the northern and eastern parts of the area referred to ; the other parts further inland receive lighter, less frequent and less reliable rainfall. With the exception of districts near the east coast, where some rain falls in all seasons, the tropical parts of the continent receive useful rains only on rare occasions from May to September.

The southern depressions are most active in the winter—June to August—and early spring months. The rains associated with them are fairly reliable and frequent over Southern Australia and Tasmania, and provide during that period the principal factor in the successful growing of wheat. These depressions also operate with varying activity during the remainder of the year, but the accompanying rains are usually lighter. The southern rains favour chiefly the south-west of Western Australia, the agricultural districts of South Australia, Victoria, Tasmania, and the southern parts of New South Wales. They sometimes extend into the drier regions of the interior, but only infrequently and irregularly.

The map showing mean monthly distribution of rainfall over Australia (page 38) gives in graphic form information on the amount and occurrence of rain.

(iv) *Wettest and Driest Regions.* The wettest known part of Australia is on the north-east coast of Queensland, between Port Douglas and Cardwell, where Deeral on the north coast-line has an average annual rainfall of 175.96 inches and Tully on the Tully River 187.19 inches. In addition, three stations situated on, or adjacent to, the Johnstone and Russell Rivers have an average annual rainfall of between 144 and 169 inches. The maximum and minimum annual amounts there are :—Deeral, 287.18 in 1945 and 99.60 inches in 1947, or a range of 187.58 inches ; Tully, 310.92 in 1950 and 104.98 inches in 1943, or a range of 205.94 inches ; Goondi, 241.53 in 1894 and 67.88 inches in 1915, or a range of 173.65 inches ; Innisfail, 232.06 in 1950 and 69.87 inches in 1902, or a range of 162.19 inches ; Harvey Creek, 254.77 in 1921 and 80.47 inches in 1902, or a range of 174.30 inches.

On five occasions more than 200 inches have been recorded at Goondi, the last of these being in 1950, when 204.97 inches were registered. The records at this station cover a period of 64 years.

In twenty-four years of record Tully has exceeded 200 inches on ten occasions, whilst in a record of 28 complete years Harvey Creek has four times exceeded this figure.

In Tasmania the wettest part is in the West Coast region, the average annual rainfall at Lake Margaret being 145.53 inches, with a maximum of 177.30 inches in 1948.

The driest known part of the continent is in an area of approximately 180,000 square miles surrounding Lake Eyre in South Australia, where the annual average is between 4 and 6 inches and where the fall rarely exceeds 10 inches for 12 months.

Records of stations have at times been interrupted, but of the 23 stations in this region which have an annual average of less than 5 inches, six have complete records extending from 30 to 55 years. Of these Mulka has the lowest average of 4.13 inches (33 years), followed by Troudaninna with an average of 4.15 inches in 42 years. Troudaninna in the period 1893 to 1936 had only one year in which the total exceeded 9 inches (11.07 inches in 1894). There have been protracted periods when the average has even been less than 3 inches. From 1895 to 1903 Troudaninna received the following annual totals :—2.78, 0.99, 5.71, 3.04, 3.18, 2.83, 1.80, 1.11, 4.87, an average of 2.91 inches. From 1918 to 1929 the average was only 2.65 inches, and in this period from December, 1924 to November, 1929 the average was only 1.70 inches.

Mulka since 1918 has only once exceeded 10 inches for the annual total (11.72 inches in 1920), and in 33 years on 15 occasions the annual total has been less than 3 inches. In one particular period from October, 1926 to September, 1930, the average was only 1.26 inches (505 points in 48 months). However, at Kanowana, an even lower four-year average of 1.12 inches was recorded between 1896 and 1899 with yearly totals of 43, 225, 87 and 94 points. An even smaller total than 43 points was recorded at Mungeranie in 1889 when only 39 points was recorded on 5 days.

The average number of rain days per month in this region is only 1–2 and the annual number ranges between 10 and 20. Oodnadatta (standard 30 years' average rainfall equal to 4.44 inches) has an average of 20 days of rain per year while Cordillo Downs in the extreme north-east corner of the State of South Australia receives 5.16 inches on 12 days per year, averaging about one day of rain each month in the thirty years' period 1911–1940.

No part of the earth, so far as is known, is absolutely rainless, and although at Arica, in northern Chile, the rainfall over a period of 15 years was nil, a further two years in which there were three measurable showers made the "average" for 17 years 0.02 inches.

(v) *Quantities and Distribution of Rainfall.* The general distribution is best seen from the rainfall map (page 37) which shows the areas subject to average annual rainfalls lying between certain limits. The proportions of the total area of each State and of Australia as a whole enjoying varying quantities of rainfall determined from the latest available information are shown in the following table :—

AVERAGE ANNUAL RAINFALL DISTRIBUTION.

(Per Cent.)

Average Annual Rainfall.	N.S.W. (*a*)	Victoria.	Queensland.	South Australia	Western Australia.	Tasmania. (*b*)	Northern Territory	Total.
Under 10 inches ..	19.7	Nil	13.0	82.8	58.0	Nil	24.7	37.6
10—15 " ..	23.5	22.4	14.4	9.4	22.4	Nil	32.4	19.9
15—20 " ..	17.5	15.2	19.7	4.5	6.8	0.7	9.7	10.9
20—25 " ..	14.2	17.9	18.8	2.2	3.7	11.0	6.6	9.1
25—30 " ..	9.1	18.0	11.6	0.8	3.7	11.4	9.3	7.3
30—40 " ..	9.9	16.1	11.1	0.3	3.3	20.4	4.7	6.6
Over 40 " ..	6.1	10.4	11.4	Nil	2.1	56.5	12.6	8.6
Total ..	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

(*a*) Includes Australian Capital Territory. (*b*) Over an area of 2,777 square miles no records are available.

Referring first to the capital cities, the records of which are given in the next table, it will be seen that Sydney, with an average rainfall of 46.86 inches, occupies the chief place: Brisbane, Perth, Melbourne, Hobart, Canberra and Adelaide follow in that order, Adelaide with 21.03 inches being the driest. The extreme range from the wettest to the driest year is greatest at Brisbane (72.09 inches) and least at Adelaide (19.46 inches).

In order to show how the rainfall is distributed throughout the year in various parts of the continent, average figures for the various climatological districts have been selected. (*See* map on p. 38). The figures for Northern Rivers (District 14), show that nearly the whole of the rainfall occurs there in the summer months, while little or none falls in the middle of the year. The figures for the Central Coast, south-west of Western Australia (District 9), are the reverse, for while the summer months are dry, the winter months are very wet. In the districts containing Melbourne and Hobart the rain is fairly well distributed throughout the twelve months, with a maximum in October for both districts. In Queensland, the heaviest rains fall in the summer months, but good averages are also maintained during the other seasons in eastern parts.

On the coast of New South Wales, the first half of the year is the wettest, with heaviest falls in the autumn; the averages during the last six months are fair, and moderately uniform. Generally it may be said that approximately one-third of the area of the continent, principally in the eastern and northern parts, enjoys an annual average rainfall of from 20 to 50 inches or more, the remaining two-thirds averaging from 5 to 20 inches.

(vi) *Tables of Rainfall.* The table of rainfall for a fairly long period of years for each of the various Australian capitals affords information as to the variability of the fall in successive years, and the list of the more remarkable falls furnishes information as to what may be expected on particular occasions.

RAINFALL : AUSTRALIAN CAPITAL CITIES.

Year.	CANBERRA.(*a*)		PERTH.		ADELAIDE.		BRISBANE.		SYDNEY.		MELBOURNE.		HOBART.(*b*)	
	Amount.	No. of Days.	Amount.	No. of Days.	Amount.	No. of Days.	Amount.	No. of Days.	Amount.	No. of Days.	Amount.	No. of Days.	Amount.	No. of Days.
	in.		in.		in.		in.		in.		in.		in.	
1920 ..	..	..	40.35	124	26.70	119	39.72	122	43.42	159	28.27	162	18.00	182
21 ..	..	..	41.09	135	22.64	100	54.31	167	43.34	140	29.76	154	18.04	159
22 ..	..	..	31.86	135	23.20	117	35.82	109	39.35	136	25.02	151	28.27	189
23 ..	..	..	44.47	134	29.79	139	23.27	93	37.01	123	22.64	158	32.93	198
24 ..	..	..	33.79	119	23.44	143	41.08	114	37.01	136	36.48	171	28.76	197
25 ..	..	..	31.41	126	21.91	118	53.10	139	50.35	145	17.57	144	22.67	170
26 ..	..	..	49.22	167	22.20	116	30.82	111	37.07	127	20.51	149	25.79	187
27 ..	..	..	36.59	133	16.92	101	62.08	130	48.56	138	17.98	135	20.13	185
28 ..	18.59	90	44.88	140	19.43	107	52.64	145	40.07	130	24.09	151	30.23	205
29 ..	23.12	70	36.77	132	17.51	119	39.78	118	57.90	129	28.81	168	26.55	194
30 ..	17.33	82	39.80	129	18.65	116	41.22	144	44.47	141	25.41	145	19.38	152
31 ..	24.02	103	39.18	118	22.26	145	66.72	136	49.22	153	28.63	164	27.17	179
32 ..	20.18	118	39.40	121	25.04	141	24.79	97	37.47	146	31.08	179	30.29	155
33 ..	20.78	96	32.47	116	22.12	130	49.71	118	42.71	153	22.28	136	23.18	182
34 ..	35.58	131	40.61	120	20.24	125	54.26	117	64.91	183	33.53	157	23.17	194
35 ..	23.78	95	32.28	129	23.45	140	34.64	111	30.97	131	29.98	183	32.22	196
36 ..	26.24	108	30.64	118	19.34	121	21.77	101	30.22	130	24.30	187	19.60	178
37 ..	20.46	82	35.28	120	23.01	128	34.79	113	52.00	157	21.45	144	20.65	160
38 ..	19.26	79	29.64	111	19.26	119	43.49	110	39.17	132	17.63	131	31.32	169
39 ..	27.63	116	45.70	123	23.29	139	41.43	122	33.67	127	33.11	166	27.23	188
40 ..	17.38	64	20.00	98	16.16	116	42.37	93	39.34	125	19.83	126	17.17	135
41 ..	19.55	91	34.74	122	22.56	126	31.50	105	26.74	129	31.78	157	23.49	145
42 ..	25.76	104	39.24	140	25.44	133	44.01	125	48.29	121	29.79	148	19.42	163
43 ..	24.59	123	31.46	117	17.84	135	50.68	126	50.74	136	18.80	150	20.84	149
44 ..	12.05	75	27.39	123	17.13	114	27.85	100	31.04	115	21.32	143	26.23	151
45 ..	22.35	100	52.67	137	17.85	105	48.16	130	46.47	136	19.22	152	16.92	157
46 ..	22.31	94	41.47	122	22.59	135	38.66	83	36.05	111	29.80	177	39.45	193
47 ..	27.95	135	43.42	137	21.89	146	60.30	146	41.45	137	30.47	163	38.61	181
48 ..	32.11	101	34.75	126	21.40	122	41.54	106	38.83	131	20.98	155	23.42	178
49 ..	27.71	100	27.15	126	18.23	119	47.18	121	66.26	149	31.41	163	22.85	157
50 ..	43.35	132	32.27	122	16.06	91	63.93	152	86.33	183	26.18	147	19.25	131
Average	24.00	100	34.91	122	21.03	123	44.93	125	46.86	151	25.62	143	24.51	168
No. of Years	23	23	75	75	112	112	99	91	92	92	95	95	68	68
Standard 30 Years' Normal	..	..	35.99	128	21.09	122	40.09	117	44.80	143	25.89	156	25.03	180

(*a*) Commonwealth Forestry Bureau ; records in issues prior to No. 36 were for the station at Acton which closed down in 1939. (*b*) Records taken from present site commenced 1883.

6. **Remarkable Falls of Rain.**—The following are the most notable falls of rain in the various States and Territories which have occurred within a period of twenty-four hours. For other very heavy falls at various localities reference may be made to Official Year Book No. 14, pp. 60–64, No. 22, pp. 46–48 and No. 29, pp. 43, 44 and 51 :—

HEAVY RAINFALLS : NEW SOUTH WALES, UP TO 1950, INCLUSIVE.

Name of Town or Locality.	Date.	Amnt.	Name of Town or Locality.	Date.	Amnt.
		in.			in.
Bega	27 Feb., 1919	17.88	Madden's Creek	13 Jan., 1911	18.68
Broger's Creek ..	14 Feb., 1898	20.05	Morpeth ..	9 Mar., 1893	21.52
,, ,, ..	13 Jan., 1911	20.83	Mt. Kembla ..	13 Jan., 1911	18.25
Buladelah ..	16 Apr., 1927	19.80	Mt. Pleasant ..	5 May, 1925	20.10
Candelo ..	27 Feb., 1919	18.58	Nimbin ..	6 Feb., 1939	16.26
Condong ..	27 Mar., 1887	18.66	South Head (Sydney Harbour)	16 Oct., 1844	20.41
Cordeaux River..	14 Feb., 1898	22.58	,, ,, ,,	29 Apr., 1841	20.12
Dorrigo ..	24 June, 1950	25.04	Towamba ..	5 Mar., 1893	20.00
Foxground ..	11 Sept., 1950	17.04	Viaduct Creek ..	15 Mar., 1936	20.00
Kembla Heights	13 Jan., 1911	17.46			

HEAVY RAINFALLS : QUEENSLAND, UP TO 1950, INCLUSIVE.

Name of Town or Locality.	Date.	Amnt.	Name of Town or Locality.	Date.	Amnt.
		in.			in.
Babinda (Cairns) ..	2 Mar., 1935	24.14	Kuranda (Cairns) ..	2 Apr., 1911	28.80
Banyan (Cardwell)	12 Feb., 1927	24.00	Landsborough ..	2 Feb., 1893	25.15
Buderim Mountain	11 Jan., 1898	26.20	Macnade Mill ..	6 Feb., 1901	23.33
Carruchan ..	24 Jan., 1934	24.00	Plane Creek (Mackay)	26 Feb., 1913	27.73
			Port Douglas ..	1 Apr., 1911	31.53
Crohamhurst (Blackall Range)	2 Feb., 1893	35.71	Sarina	26 Feb., 1913	27.75
Deeral	2 Mar., 1935	27.60	Springbrook ..	24 Jan., 1947	27.07
Flat Top Island ..	21 Jan., 1918	25.18	Tully Mill ..	12 Feb., 1927	23.80
Goondi	30 Jan., 1913	24.10	Woodlands (Yepp'n)	3 Jan., 1893	23.07
Harvey Creek ..	3 Jan., 1911	27.75	Yarrabah ..	2 Apr., 1911	30.65

HEAVY RAINFALLS : WESTERN AUSTRALIA, UP TO 1950, INCLUSIVE.

Name of Town or Locality.	Date.	Amnt.	Name of Town or Locality.	Date.	Amnt.
		in.			in.
Balla Balla ..	21 Mar., 1899	14.40	Pilbara	2 Apr., 1898	14.04
Boodarie ..	21 Mar., 1899	14.53	Roebuck Plains ..	5 Jan., 1917	14.01
Broome	6 Jan., 1917	14.00	,, ,, ..	6 Jan., 1917	22.36
Carlton Hill ..	7 Feb., 1942	12.75	Thangoo	17-19 Feb.'96	24.18
Derby	7 Jan., 1917	16.47	Towrana ..	1 Mar., 1943	12.16
Fortesque ..	3 May, 1890	23.36	Whim Creek ..	3 Apr., 1898	29.41
Jimba Jimba ..	1 Mar., 1943	11.54	Winderrie ..	17 Jan., 1923	14.23
Marble Bar ..	2 Mar., 1941	12.00	Widjip	1 Apr., 1934	19.54

HEAVY RAINFALLS : NORTHERN TERRITORY, UP TO 1950, INCLUSIVE.

Name of Town or Locality.	Date.	Amnt.	Name of Town or Locality.	Date.	Amnt.
		in.			in.
			Cape Don ..	13 Jan., 1935	13.58
Bathurst Island Mission ..	7 Apr., 1925	11.85	Darwin	7 Jan., 1897	11.67
Borroloola ..	14 Mar., 1899	14.00	Groote Eylandt ..	9 Apr., 1931	14.29
Brock's Creek ..	24 Dec., 1915	14.33	Timber Creek ..	5 Feb., 1942	13.65

HEAVY RAINFALLS : SOUTH AUSTRALIA, UP TO 1950, INCLUSIVE.

Name of Town or Locality.	Date.	Amnt.	Name of Town or Locality.	Date.	Amnt.
		in.			in.
Ardrossan ..	18 Feb., 1946	8.10	Mannum ..	25 Jan., 1941	6.84
Cape Willoughby ..	18 Feb., 1946	6.80	Port Victoria ..	18 Feb., 1946	7.08
Carpa	18 Feb., 1946	7.83	Torrens Vale ..	25 Jan., 1941	6.77
Edithburg ..	18 Feb., 1946	7.46	Wilmington ..	1 Mar., 1921	7.12
Hesso	18 Feb., 1946	7.36	Wirrabara ..	7 Mar., 1910	6.80
Maitland ..	18 Feb., 1946	7.21	Wynbring ..	28 Feb., 1921	7.70

HEAVY RAINFALLS : VICTORIA, UP TO 1950, INCLUSIVE.

Name of Town or Locality.	Date.	Amnt.	Name of Town or Locality.	Date.	Amnt.
		in.			in.
Blackwood "Greenhill"	26 Jan., 1941	8.98	Kalorama ..	1 Dec., 1934	10.05
Cann River ..	27 Feb., 1919	9.56	Korumburra ..	1 Dec., 1934	8.51
,, ,, ..	16 Mar., 1938	9.94	Mt. Buffalo ..	6 June, 1917	8.53
Corinella ..	28 June, 1918	8.75	Olinda	1 Dec., 1934	9.10
Erica	1 Dec., 1934	8.66	Tambo Crossing ..	13 July, 1925	8.89
Hazel Park ..	1 Dec., 1934	10.50	Tonghi Creek ..	27 Feb., 1919	9.90

HEAVY RAINFALLS : TASMANIA, UP TO 1950, INCLUSIVE.

Name of Town or Locality	Date.	Amnt.	Name of Town or Locality.	Date	Amnt.
		in.			in.
Cullenswood ..	5 Apr., 1929	11.12	Riana	5 Apr., 1929	11.08
Gould's Country ..	8-10 Mar.,'11	15.33	The Springs ..	30-31 Jan., '16	10.75
Lottah	8-10 Mar.,'11	18.10	Triabunna ..	5 June, 1923	10.20
Mathinna ..	5 Apr., 1929	13.25			

HEAVY RAINFALLS : AUSTRALIAN CAPITAL TERRITORY, UP TO 1950, INCLUSIVE.

Name of Town or Locality.	Date.	Amnt.	Name of Town or Locality.	Date.	Amnt.
		in.			in.
Canberra (Acton) . .	27 May, 1925	6.84	Land's End . .	27 May, 1925	6.35
Cotter Junction . .	27 May, 1925	7.13	Uriarra (Woodside)	27 May, 1925	6.57

7. **Snowfall.**—Light snow has been known to fall occasionally as far north as latitude 31° S., and from the western to the eastern shores of the continent. During exceptional seasons, it has fallen simultaneously over two-thirds of New South Wales, and has extended at times along the whole of the Great Dividing Range, from its southern extremity in Victoria as far north as Toowoomba in Queensland. During the winter, for several months, snow covers the ground to a great extent on the Australian Alps, where also the temperature falls below zero Fahrenheit during the night. In the ravines around Mt. Kosciusko and similar localities the snow never entirely disappears after a severe winter.

8. **Hail.**—Hail falls most frequently along the southern shores of the continent in the winter, and over eastern Australia during the summer months. The size of the hailstones generally increases with distance from the coast. A summer rarely passes without some station experiencing a fall of stones exceeding in size an ordinary hen-egg, and many riddled sheets of light-gauge galvanized iron bear evidence of the weight and penetrating power of the stones.

The hailstones occur most frequently when the barometric readings indicate a flat and unstable condition of pressure. Tornadoes or tornadic tendencies are almost invariably accompanied by hail, and on the east coast the clouds from which the stones fall are frequently of a remarkable sepia-coloured tint.

9. **Barometric Pressures.**—The mean annual barometric pressure (corrected to sea level and standard gravity) in Australia varies from 29.80 inches on the north coast to 29.92 inches over the central and 30.03 inches in the southern parts of the continent. In January, the mean pressure ranges from 29.70 inches in the northern and central areas to 29.95 inches in the southern. The July mean pressure ranges from 29.90 inches at Darwin to 30.12 inches at Alice Springs. Barometer readings corrected to mean sea level and standard gravity have, under anticyclonic conditions, ranged as high as 30.935 inches (at Hobart on 13th July, 1846) and have fallen as low as 27.55 inches. This lowest record was registered at Mackay during a tropical hurricane on 21st January, 1918. An almost equally abnormal reading of 27.88 inches was recorded at Innisfail during a similar storm on 10th March, 1918. For graphs of Mean Barometric Pressure at Capital Cities *see* Official Year Book No. 37, p. 35.

10. **Wind.**—(i) *Trade Winds.* The two distinctive wind currents in Australia are, as previously stated, the south-east trade and the "prevailing" westerly winds. As the belt of the earth's atmosphere in which they blow apparently follows the sun's ecliptic path north and south of the equator, so the area of the continent affected by these winds varies at different seasons of the year. During the summer months the anticyclonic belt travels in high latitudes, thereby bringing the south-east trade winds as far south as 30° south latitude. The "prevailing" westerly winds retreat a considerable distance to the south of Australia, and are less in evidence in the hot months. When the sun passes to the north of the equator, the south-east trade winds follow it, and only operate to the north of the tropics for the greater part of the winter. The westerly winds come into lower latitudes during the same period of the year. They sweep across the southern areas of the continent from Cape Leeuwin to Cape Howe, and during some seasons are remarkably persistent and strong, and occasionally penetrate to almost tropical latitudes.

(ii) *North-west Monsoon.* As the belt of south-east trade winds retreats southward during the summer, it is replaced in the north and north-west of Australia first by a sequence of light variable winds and then by the north-west monsoon. In Australia, the north-west monsoon has not the persistence nor regularity of the Indian south-west monsoon but is sufficiently characteristic for the summer in the north of Australia to be called the "North-west Season". In central and eastern Queensland, the north-west monsoon in the summer has comparatively little effect and the trade winds, albeit weakened, are still dominant winds. With the migration of the sun northward in the autumn, the north-west monsoon is itself replaced first by light variable winds and then by the trade winds.

Further particulars of Australian wind conditions and meteorology will be found in Official Year Book No. 38, pp. 58–61.

(iii) *Cyclones and Storms.* The "elements" in Australia are ordinarily peaceful, and while destructive cyclones have visited various parts, more especially coastal areas, such visitations are rare, and may be properly described as erratic.

During the winter months, the southern shores of the continent are subject to deep depressions of the southern low-pressure belt. They are felt most severely over the south-western parts of Western Australia, to the south-east of South Australia, in Bass Strait, including the coast-line of Victoria, and on the west coast of Tasmania. Apparently the more violent wind pressures from these disturbances are experienced in their northern half, or in that part of them which has a north-westerly to a south-westerly circulation.

The north-east coast of Queensland is occasionally visited by hurricanes from the north-east tropics. During the first four months of the year, these hurricanes appear to have their origin in the neighbourhood of the South Pacific Islands, their path being a parabolic curve first to the south-west and finally towards the south-east.

Very severe cyclones, locally known as "willy willies," are peculiar to the north-west coast of Western Australia from the months of November to April, inclusive. They usually originate over the ocean to the north or north-west of Australia, and travel in a south-westerly direction with continually increasing force, displaying their greatest energy near Cossack and Onslow, between latitudes 20° and 22° South. The winds in these storms, like those from the north-east tropics, are very violent and destructive. The greatest velocities are usually to be found in the south-eastern quadrant of the cyclones, with north-east to east winds. After leaving the north-west coast, these storms either travel southwards, following the coast-line, or cross the continent to the Great Australian Bight. When they take the latter course, their track is marked by torrential rains, as much as 29.41 inches, for example, being recorded in 24 hours at Whim Creek from one such occurrence. Falls of 10 inches and over have frequently been recorded in the northern interior of Western Australia from similar storms.

Some further notes on severe cyclones and on "southerly bursters", a characteristic feature of the eastern part of Australia, appear in previous issues of the Official Year Book (*see* No. 6, pp. 84–86), and a special article dealing with "Australian Hurricanes and Related Storms" appears in Official Year Book No. 16, pp. 80–84.

Depressions vary considerably in their isobaric forms, intensity and other characteristics. Some bring rain in variable quantities, some heat and others mainly wind. A common type in southern Australia is the "Λ" shaped trough with an abrupt "backing" of the wind or "line squall" as it passes. The cold front is most frequently found through the centre of the "trough" because it is along this line, and extending into the upper levels of the atmosphere that the demarcation of different air masses is so well defined. The best rains occur in inland Australia when extensive masses of warm moist tropical air move into the interior and are forced to rise by convergence of flow or by impact with a cold air stream.

The speed of low pressure systems is very variable, but in general in southern latitudes the movement is of the order of 500 to 700 miles per day.

11. **Influences affecting Australian Climate.**—(i) *General.* Australian history does not cover a sufficient period, nor is the country sufficiently occupied, to ascertain whether or not the advance of settlement has materially affected the climate as a whole. Local changes have, however, taken place, a fact which suggests that settlement and the treatment of the land have a distinct effect on local conditions. For example, low-lying lands on the north coast of New South Wales, which originally were seldom subject to frosts, have, with the denudation of the surrounding hills from forests, experienced annual visitations, the probable explanation being that through the absence of trees the cold air of the highlands now flows unchecked and untempered down the sides of the hills to the valleys and lower lands.

(ii) *Influence of Forest on Climate.* As already indicated, forests doubtless exercise a great influence on local climate, and hence, to the extent that forestal undertakings will allow, the weather can be controlled by human agency. The direct action of forests is an equalizing one; thus, especially in equatorial regions, and during the warmest portion of the year, they considerably reduce the mean temperature of the air. They also reduce the diurnal extremes of shade temperatures by altering the extent of radiating surface by evaporation, and by checking the movement of air, and while decreasing evaporation from the ground, they increase the relative humidity. Vegetation greatly diminishes the rate of flow-off of rain and the washing away of surface soil, and when a region is protected by trees a steadier water supply is ensured, and the rainfall is better conserved. In regions of snowfall, the supply of water to rivers is similarly regulated, and without this and the sheltering influence of ravines and "gullies," watercourses supplied mainly by melting snow would be subject to alternative periods of flooding and dryness. This is borne out in the case of the inland rivers, the River Murray, for example, which has never been known to become dry, deriving its steadiness of flow mainly through the causes indicated.

(iii) *Direct Influence of Forests on Rainfall.* Whether forests have a direct influence on rainfall is a debatable question, some authorities alleging that precipitation is undoubtedly induced by forests, while others take the opposite view.

Sufficient evidence exists, however, to prove that, even if the rainfall has not increased, the beneficial climatic effect of forest lands more than warrants their protection and extension. Rapid rate of evaporation, induced by both hot and cold winds, injures crops and makes life uncomfortable on the plains, and, while it may be doubted that the forest aids in increasing precipitation, it must be admitted that it does check winds and the rapid evaporation due to them. Trees as wind-breaks have been successfully planted in central parts of the United States of America, and there is no reason why similar experiments should not be successful in many parts of the treeless interior of Australia. The belts should be planted at right angles to the direction of the prevailing parching winds, and if not more than half a mile apart will afford shelter to the enclosed areas.

12. **Rainfall and Temperatures, Various Cities.**—The Official Year Book No. 34, p. 28, shows rainfall and temperature for various important cities throughout the world, and for the Australian capitals.

13. **Climatological Tables.**—The averages and extremes for a number of climatological elements, which have been determined from long series of observations at the Australian capitals up to and including the year 1950, are given on pp. 58–64.

NOTE.—The following points apply throughout:—

(i) Where records are available, mean or average values have been calculated on a standard period of 30 years from 1911 to 1940.

(ii) Extreme values have been extracted from all available years of actual record, but the number of years quoted does not include intervening periods when observations were temporarily discontinued.

CLIMATOLOGICAL DATA : CANBERRA, AUSTRALIAN CAPITAL TERRITORY.

LAT. 35° 18′ S., LONG. 149° 06′ E. HEIGHT ABOVE M.S.L. 1,906 FT.

BAROMETER, WIND, EVAPORATION, LIGHTNING, CLOUDS AND CLEAR DAYS.

Month.	Bar. corrected to 32° F. Mn. Sea Level and Standard Gravity from 9 a.m. and 3 p.m. readings.	Wind. (Height of Anemometer 20 feet.) Average Miles per Hour.	Highest Mean Speed in One Day (miles per hour).	Highest Gust Speed (miles per hour).	Prevailing Direction. 9 a.m.	Prevailing Direction. 3 p.m.	Mean Amount of Evaporation (inches).	No. of Days of Lightning.	Mean Amount of Clouds, 9 a.m. and 3 p.m.(a)	No. of Clear Days.
No. of years of observations.	20	21	22	(b)	23	23	22	14	20	21
January ..	29.837	5.1	14.9 23/33	—	NW	NW	8.73	1.2	4.7	7.7
February ..	29.899	4.5	15.3 24/33	—	E	NW	6.83	3.0	4.8	6.5
March ..	30.012	4.1	18.2 28/42	—	E	NW	5.10	0.1	5.0	6.7
April	30.076	3.8	18.6 8/45	—	NW	NW	3.36	0.3	5.4	4.7
May	30.151	3.1	12.6 3/30	—	NW	NW	2.03	0.1	5.4	5.7
June	30.141	3.7	16.1 2/30	—	NW	NW	1.32	0.1	6.1	4.1
July	30.129	3.6	23.4 7/31	—	NW	NW	1.30	0.0	5.6	5.0
August ..	30.077	4.3	15.7 25/36	—	NW	NW	1.86	0.1	5.4	5.6
September ..	30.045	4.7	17.4 28/34	—	NW	NW	3.01	0.4	5.0	6.1
October ..	29.969	4.6	12.4 27/40	—	NW	NW	4.64	1.0	5.2	5.4
November ..	29.897	4.9	17.2 28/42	—	NW	NW	6.02	1.2	5.5	4.2
December ..	29.837	5.0	16.1 11/38	—	NW	NW	7.92	1.0	5.1	5.6
Year Totals ..	—	—	—	—	—	—	52.42	8.5	—	67.3
Year Averages	30.005	4.3	—	—	NW	NW	—	—	5.3	—
Year Extremes	—	—	23.4 7/7/31	—	—	—	—	—	—	—

(a) Scale 0–10. (b) No record.

TEMPERATURE AND SUNSHINE.

Month.	Mean Temperature (°Fahr.) Mean Max.	Mean Min.	Mean	Extreme Shade Temperature (°Fahr.). Highest.	Lowest.	Extreme Range.	Extreme Temperature (°Fahr.). Highest in Sun.	Lowest on Grass.	Mean Daily Hours of Sunshine.
No. of years over which observation extends.	23	23	23	23	23	23	(a)	23	20
January	82.5	56.0	69.3	107.4 11/39	39.4 18/49	68.0	—	30.1 10/50	8.1
February ..	81.1	56.0	68.6	96.8 13/33	35.0 (b)	64.8	—	26.5 23/43	7.5
March	75.9	52.4	64.1	99.1 6/38	34.8 31/49	64.3	—	26.4 20/35	7.1
April	66.5	45.1	55.8	89.7 6/38	29.0 29/34	60.7	—	19.0 18/44	6.0
May	59.5	38.8	49.2	72.6 1/36	22.5 9/29	50.1	—	15.6 (c)	5.2
June	52.4	35.4	43.9	61.0 (d)	18.1 20/35	42.9	—	8.9 25/44	4.3
July	51.7	33.9	42.8	63.5 16/34	20.0 (e)	43.5	—	10.8 9/37	4.7
August	55.2	35.4	45.3	70.5 28/34	21.0 3/29	49.5	—	10.1 6/44	5.8
September	61.3	39.0	50.1	81.5 16/34	25.2 6/46	56.3	—	13.0 6/45	7.2
October	67.4	44.2	55.8	90.0 13/46	29.0 24/28	61.0	—	18.2 2/45	7.7
November	73.4	49.3	61.4	101.4 19/44	32.2 11/36	69.2	—	25.9 6/40	7.9
December	79.7	53.6	66.6	103.5 27/38	36.0 24/28	67.5	—	30.2 (f)	8.2
Year Averages ..	67.2	44.9	56.1	—	—	—	—	—	6.7
Year Extremes ..	—	—	—	107.4 11/1/39	18.1 20/6/35	89.3	—	8.9 25/6/44	—

(a) No record. (b) 22/31 and 23/31. (c) 13/37 and 15/46. (d) 3/27 and 28/30. (e) 19/29, 9/37, and 27/43. (f) 2/39 and 20/48.

HUMIDITY, RAINFALL AND FOG.

Month.	Vapour Pressure (inches) Mean 9 a.m.	Rel. Hum. (%) at 9 a.m. Mean.	Highest Mean.	Lowest Mean.	Rainfall (inches). Mean Monthly.	Mean No. of Days of Rain.	Greatest Monthly.	Least Monthly.	Greatest in One Day.	Fog. Mean No. of Days of Fog.
No. of years over which observation extends.	22	22	22	22	23	23	23	23	23	19
January	0.374	52	69	39	2.14	7	6.69 1941	0.02 1932	2.47 19/50	0.0
February	0.399	57	71	40	2.22	6	6.03 1948	0.01 1933	3.24 17/28	0.0
March	0.385	66	79	48	2.33	7	12.69 1950	0.01 1940	2.46 19/50	0.3
April	0.317	71	81	51	2.16	8	3.75 1935	0.07 1942	2.52 9/45	1.1
May	0.257	79	87	67	1.82	7	6.13 1948	0.06 1935	3.88 3/48	4.4
June	0.216	82	90	72	1.63	9	6.09 1931	0.18 1944	1.65 24/31	6.0
July	0.204	81	87	73	1.61	10	4.09 1933	0.27 1940	2.02 13/33	5.0
August	0.212	75	88	60	1.89	11	4.71 1939	0.36 (a)	2.07 12/29	2.0
September	0.240	65	71	51	1.59	9	3.03 1937	0.13 1946	1.75 3/47	1.0
October	0.279	59	72	46	2.53	10	6.59 1934	0.34 1940	2.51 25/34	0.2
November	0.316	55	67	38	2.15	8	4.45 1950	0.28 1936	2.45 9/50	0.0
December	0.347	51	70	37	1.90	8	8.80 1947	0.16 1938	2.29 28/29	0.0
Year Totals ..	—	—	—	—	24.00	100	—	—	—	20.0
Year Averages ..	0.285	66	—	—	—	—	—	—	—	—
Year Extremes ..	—	—	90	37	—	—	12.69 3/50	0.01 2/33, 3/40	3.88 3/5/48	—

(a) 1944 and 1949.

CLIMATOLOGICAL DATA : PERTH, WESTERN AUSTRALIA.

LAT. 31° 57′ S., LONG. 115° 51′ E. HEIGHT ABOVE M.S.L. 210 FT.

BAROMETER, WIND, EVAPORATION, LIGHTNING, CLOUDS AND CLEAR DAYS.

Month.	Bar. corrected to 32° F. Mn. Sea Level and Standard Gravity from 9 a.m. and 3 p.m. readings.	Wind. (Height of Anemometer 71 feet.)					Mean Amount of Evaporation (inches).	No. of Days of Lightning.	Mean Amount of Clouds, 9 a.m., 3 p.m., 9 p.m.(a)	No. of Clear Days
		Average Miles per Hour.	Highest Mean Speed in One Day (miles per hour).	Highest Gust Speed (miles per hour).	Prevailing Direction. 9 a.m.	Prevailing Direction. 3 p.m.				
No. of years of observations.	30(b)	30(b)	52	38	30(b)	30(b)	30(b)	30(b)	30(b)	30(b)
January	29.897	13.8	33.2 27/98	49	E	SSW	10.37	2	2.9	14
February ..	29.922	13.5	27.1 6/08	50	ENE	SSW	8.63	2	3.1	13
March ..	29.976	12.8	27.1 6/13	66	E	SSW	7.52	2	3.5	12
April	30.071	10.7	39.8 25/00	61	ENE	SSW	4.62	2	4.2	9
May	30.062	10.6	34.4 29/32	73	NE	WSW	2.80	3	5.4	6
June	30.068	10.6	38.1 17/27	80	N	NW	1.82	2	5.9	5
July	30.082	11.2	42.3 20/26	73	NNE	W	1.76	2	5.6	5
August ..	30.084	11.8	40.3 15/03	77	N	WNW	2.37	2	5.6	6
September ..	30.073	11.8	36.0 11/05	75	ENE	SSW	3.44	1	4.9	8
October ..	30.033	12.6	33.7 6/16	63	SE	SW	5.38	1	4.8	8
November ..	29.989	13.4	32.4 18/97	63	E	SW	7.65	2	3.9	9
December ..	29.923	13.9	32.3 6/22	64	E	SSW	9.69	2	3.2	13
Year Totals ..	—	—	—	—	—	—	66.05	23	—	108
Year Averages	30.015	12.2	—	—	E	SSW	—	—	4.4	—
Year Extremes	—	—	42.3 20/7/26	80	—	—	—	—	—	—

(a) Scale 0–10. (b) Standard 30 years' normal (1911–1940).

TEMPERATURE AND SUNSHINE.

Month.	Mean Temperature (°Fahr.).			Extreme Shade Temperature (°Fahr.).		Extreme Range.	Extreme Temperature (°Fahr.).		Mean Daily Hours of Sunshine.
	Mean Max.	Mean Min.	Mean	Highest.	Lowest.		Highest in Sun.	Lowest on Grass.	
No. of years over which observation extends.	30(a)	30(a)	30(a)	54	54	54	52	52	30(a)
January	84.6	63.3	73.9	110.2 12/34	48.6 20/25	61.6	177.3 22/14	39.5 20/25	10.4
February	85.1	63.5	74.3	112.2 8/33	47.7 1/02	64.5	173.7 4/34	39.8 1/13	9.8
March	81.3	61.5	71.4	106.4 14/22	45.8 8/03	60.6	167.0 19/18	36.7 8/03	8.8
April	76.3	57.4	66.8	99.7 9/10	39.3 20/14	60.4	157.0 8/16	31.0 20/14	7.5
May	69.0	52.8	60.9	90.4 2/07	34.3 11/14	56.1	146.0 4/25	25.3 11/14	5.7
June	64.4	49.8	57.1	81.7 2/14	35.0 30/20	46.7	135.5 9/14	26.3 11/37	4.8
July	62.8	48.0	55.4	76.4 21/21	34.2 7/16	42.2	133.2 13/15	25.1 30/20	5.4
August	63.8	48.4	56.1	82.0 21/40	35.3 31/08	46.7	145.1 29/21	26.7 24/35	6.0
September	66.8	50.4	58.6	90.9 30/18	38.5 15/47	52.4	153.6 29/16	29.2 21/16	7.2
October	69.7	52.6	61.1	95.3 30/22	40.0 16/31	55.3	157.5 31/36	29.8 16/31	8.1
November	76.7	57.3	67.0	104.6 24/13	42.0 1/04	62.6	167.0 30/25	35.5 (b)	9.6
December	81.2	60.9	71.0	107.9 20/04	48.0 2/10	59.9	168.8 11/27	39.0 12/20	10.4
Year Averages ..	73.5	55.5	64.5	—	—	—	—	—	7.8
Year Extremes ..	—	—	—	112.2 8/2/33	34.2 7/7/16	78.0	177.3 22/1/14	25.1 30/7/20	—

(a) Standard 30 years' normal (1911–1940). (b) 6/10 and 14/12.

HUMIDITY, RAINFALL AND FOG.

Month.	Vapour Pressure (inches)	Rel. Hum. (%) at 9 a.m.			Rainfall (inches).					Fog.
	Mean 9 a.m.	Mean.	Highest Mean.	Lowest Mean.	Mean Monthly.	Mean No. of Days of Rain.	Greatest Monthly.	Least Monthly.	Greatest in One Day.	Mean No. of Days of Fog.
No. of years over which observation extends.	30(a)	30(a)	54	54	30(a)	30(a)	75	75	75	30(a)
January	0.438	51	61	41	0.33	3	2.17 1879	Nil (b)	1.74 27/79	0
February	0.434	51	65	43	0.50	3	2.98 1915	Nil (b)	1.63 26/15	0
March	0.432	57	66	46	0.90	5	5.71 1934	Nil (b)	3.03 9/34	0
April	0.397	61	73	51	1.75	8	5.85 1926	Nil 1920	2.62 30/04	1
May	0.365	70	81	61	5.14	15	12.13 1879	0.98 1903	3.00 17/42	2
June	0.337	75	83	68	7.55	17	18.75 1945	2.16 1877	3.90 10/20	2
July	0.322	76	84	69	7.08	19	12.28 1926	2.42 1876	3.00 4/81	2
August	0.316	71	81	62	5.78	19	12.53 1945	0.46 1902	2.91 14/45	1
September	0.341	66	75	58	3.37	15	7.84 1923	0.34 1916	1.82 4/31	0
October	0.345	60	75	52	2.30	12	7.87 1890	0.15 1946	1.73 3/33	0
November	0.374	52	63	41	0.75	7	2.78 1916	Nil 1891	1.40 15/48	0
December	0.409	51	63	44	0.54	5	3.05 1888	Nil (c)	1.72 1/88	0
Year Totals ..	—	—	—	—	35.99	128	—	—	—	8
Year Averages ..	0.370	62	—	—	—	—	—	—	—	—
Year Extremes ..	—	—	84	41	—	—	18.75 6/1945	Nil Various months	3.90 10/6/20	—

(a) Standard 30 years' normal (1911–1940). (b) Various years. (c) 1886 and 1924.

CLIMATOLOGICAL DATA : ADELAIDE, SOUTH AUSTRALIA.

LAT. 34° 56′ S., LONG. 138° 35′ E. HEIGHT ABOVE M.S.L. 140 FT.

BAROMETER, WIND, EVAPORATION, LIGHTNING, CLOUDS AND CLEAR DAYS.

Month.	Bar. corrected to 32° F. Mn. Sea Level and Standard Gravity from 9 a.m. and 3 p.m. readings.	Wind. (Height of Anemometer 75 feet.)					Mean Amount of Evaporation (inches).	No. of Days of Lightning.	Mean Amount of Clouds, 9 a.m., 3 p.m., 9 p.m.(a)	No. of Clear Days.
		Average Miles per Hour.	Highest Mean Speed in One Day (miles per hour).	Highest Gust Speed (miles per hour).	Prevailing Direction. 9 a.m.	Prevailing Direction. 3 p.m.				
No. of years of observations.	30(b)	30(b)	73	34	30(b)	30(b)	30(b)	30(b)	30(b)	30(b)
January ..	29.917	9.9	31.6 19/99	72	SW	SW	9.27	2.3	3.6	12.9
February ..	29.953	8.8	28.8 22/96	64	NE	SW	7.56	2.0	3.7	11.2
March ..	30.037	8.3	26.2 9/12	63	S	SW	6.39	1.8	4.0	10.6
April	30.119	8.0	32.2 10/96	81	NE	SW	3.78	1.5	5.2	7.2
May	30.131	8.1	31.7 9/80	63	NE	NW	2.27	1.3	5.8	4.9
June	30.119	8.3	31.3 12/78	67	NE	N	1.37	1.3	6.1	4.1
July	30.111	8.5	28.1 25/82	60	NE	NW	1.34	1.5	6.0	4.3
August ..	30.084	9.2	32.2 31/97	57	NE	SW	1.99	2.0	5.5	5.6
September ..	30.050	9.2	30.0 2/87	69	NNE	SW	3.05	2.0	5.3	5.8
October ..	30.007	9.8	32.0 28/98	69	NNE	SW	5.03	2.8	5.3	5.7
November ..	29.990	9.9	32.2 7/48	79	SW	SW	6.89	3.3	4.9	7.2
December ..	29.922	9.9	28.1 12/91	75	SW	SW	8.74	2.2	4.2	9.5
Year Totals ..	—	—	—	—	—	—	57.68	24.0	—	89.0
Year Averages	30.037	9.0	—	—	NE	SW	—	—	5.0	—
Year Extremes	—	—	32.2 (c)	81	—	—	—	—	—	—

(a) Scale 0–10. (b) Standard 30 years' normal (1911–1940). (c) 10/4/1896, 31/8/1897 and 7/11/1948.

TEMPERATURE AND SUNSHINE.

Month.	Mean Temperature (°Fahr.).			Extreme Shade Temperature (°Fahr.).		Extreme Range.	Extreme Temperature (°Fahr.).		Mean Daily Hours of Sunshine.
	Mean Max.	Mean Min.	Mean	Highest.	Lowest.		Highest in Sun.	Lowest on Grass.	
No. of years over which observation extends.	30(a)	30(a)	30(a)	94	94	94	54(b)	90	30(a)
January	84.8	61.0	72.9	117.7 12/39	45.1 21/84	72.6	180.0 18/82	36.5 14/79	10.0
February	85.7	61.8	73.7	113.6 12/99	45.5 23/18	68.1	170.5 10/00	35.8 23/26	9.3
March	81.3	59.1	70.2	110.5 9/34	43.9 21/33	66.6	174.0 17/83	32.1 21/33	7.9
April	73.0	54.4	63.7	98.6 5/38	39.6 15/59	59.0	155.0 1/83	30.2 16/17	6.0
May	66.8	50.8	58.8	89.5 4/21	36.9 (c)	52.6	148.2 12/79	25.6 19/28	4.8
June	61.0	46.6	53.8	76.0 23/65	32.5 (d)	43.5	138.8 18/79	21.0 24/44	4.2
July	59.9	45.4	52.7	74.0 11/06	32.0 24/08	42.0	134.5 26/90	22.1 30/29	4.3
August	62.3	46.2	54.3	85.0 31/11	32.3 17/59	52.7	140.0 31/92	22.8 11/29	5.4
September	66.8	48.3	57.5	91.3 29/44	32.7 4/58	58.6	160.5 23/82	25.0 25/27	6.3
October	72.5	51.7	62.1	102.9 21/22	36.0 —/57	66.9	162.0 30/21	27.8 (e)	7.3
November	78.1	55.4	66.7	113.5 21/65	40.8 2/09	72.7	166.9 20/78	31.5 2/09	8.6
December	82.6	58.9	70.7	114.6 29/31	43.0 (f)	71.6	175.7 7/99	32.5 4/84	9.5
Year Averages ..	72.9	53.3	63.1	—	—	—	—	—	7.0
Year Extremes ..	—	—	—	117.7 12/1/39	32.0 24/7/08	85.7	180.0 18/1/82	21.0 24/6/44	—

(a) Standard 30 years' normal (1911–1940). (b) Records incomplete, 1931–34. Discontinued, 1934. (c) 26/1895. (d) 27/1876 and 24/1944. (e) 4/1931 and 2/1918. (f) 16/1861 and 4/1906.

HUMIDITY, RAINFALL AND FOG.

Month.	Vapour Pressure (inches)	Rel. Hum. (%) 9 a.m.			Rainfall (inches).					Fog.
	Mean 9 a.m.	Mean.	Highest Mean.	Lowest Mean.	Mean Monthly.	Mean No. of Days of Rain.	Greatest Monthly.	Least Monthly.	Greatest in One Day.	Mean No. of Days of Fog
No. of years over which observation extends.	30(a)	30(a)	83	83	30(a)	30(a)	112	112	112	30(a)
January	0.327	39	59	29	0.76	5	4.00 1850	Nil (b)	2.30 2/89	0.0
February	0.352	41	56	30	1.10	5	6.09 1925	Nil (b)	5.57 7/25	0.0
March	0.332	44	58	29	0.87	5	4.60 1878	Nil (b)	3.50 5/78	0.0
April	0.329	55	72	37	1.45	10	6.78 1853	Nil 1945	3.15 5/60	0.0
May	0.313	64	76	49	2.49	13	7.75 1875	0.10 1934	2.75 1/53	0.6
June	0.294	75	84	67	2.93	15	8.58 1916	0.42 1886	2.11 1/20	1.1
July	0.282	75	87	66	2.49	16	5.38 1865	0.37 1899	1.75 10/65	1.4
August	0.282	68	78	54	2.58	16	6.24 1852	0.33 1944	2.23 19/51	0.4
September	0.289	59	72	44	2.39	13	5.83 1923	0.45 1896	1.50 20/23	0.2
October	0.287	48	67	29	1.54	10	4.38 1948	0.17 1914	2.24 16/08	0.0
November	0.292	41	57	31	1.22	8	4.10 1934	0.04 1885	2.08 7/34	0.0
December	0.322	40	50	31	1.27	6	3.98 1861	Nil 1904	2.42 23/13	0.0
Year Totals ..	—	—	—	—	21.09	122	—	—	—	3.7
Year Averages ..	0.304	52	—	—	—	—	—	—	—	—
Year Extremes ..	—	—	87	29	—	—	8.58 6/1916	Nil (c)	5.57 7/2/25	—

(a) Standard 30 years' normal (1911–1940). (b) Various years. (c) December to April, various years.

CLIMATOLOGICAL DATA : BRISBANE, QUEENSLAND.

LAT. 27° 28′ S., LONG. 153° 2′ E. HEIGHT ABOVE M.S.L. 134 FT.

BAROMETER, WIND, EVAPORATION, LIGHTNING, CLOUDS AND CLEAR DAYS.

Month.	Bar. corrected to 32° F. Mn. Sea Level and Standard Gravity from 9 a.m. and 3 p.m. readings.	Wind. (Height of Anemometer 105 feet.)					Mean Amount of Evaporation (inches).	No. of Days of Lightning.	Mean Amount of Clouds, 9 a.m., 3 p.m., 9 p.m.(a)	No. of Clear Days.
		Average Miles per Hour.	Highest Mean Speed in One Day (miles per hour).	Highest Gust Speed (miles per hour).	Prevailing Direction.					
					9 a.m.	3 p.m.				
No. of years of observations.	30(b)	30(b)	36	36	30(b)	30(b)	30(b)	30(b)	30(b)	30(b)
January ..	29.865	6.8	19.7 23/47	58	SE	NE	6.74	9.8	5.7	3.5
February ..	29.912	7.0	21.0 5/31	67	SE	NE	5.49	6.5	5.6	2.4
March ..	29.975	6.5	20.3 1/29	50	S	E	5.05	5.9	5.1	5.4
April	30.035	5.9	16.7 3/25	57	S	E	4.05	5.0	4.3	7.8
May	30.083	5.8	17.9 17/26	48	SW	SE	3.09	4.1	4.3	8.3
June	30.091	5.7	19.0 14/28	58	SW	W & SW	2.45	2.9	4.4	9.2
July	30.090	5.6	15.0 2/23	52	SW	W & SW	2.69	2.8	3.8	12.4
August ..	30.105	5.8	14.8 4/35	56	SW	NE	3.51	3.8	3.1	13.1
September ..	30.067	5.9	16.1 1/48	57	SW	NE	4.51	5.8	3.3	13.0
October ..	30.019	6.3	15.7 1/41	62	S	NE	5.81	7.1	4.2	8.5
November ..	29.958	6.7	15.5 10/28	62	SE & N	NE	6.32	9.5	4.9	5.9
December ..	29.890	7.0	19.5 15/26	79	SE	NE	7.02	10.6	5.3	3.8
Year Totals ..	—	—	—	—	—	—	56.73	73.8	—	93.3
Year Averages	30.007	6.3	—	—	SW	NE	—	—	4.5	—
Year Extremes	—	—	21.0 5/2/31	79	—	—	—	—	—	—

(a) Scale 0–10. (b) Standard 30 years' normal (1911–1940).

TEMPERATURE AND SUNSHINE.

Month.	Mean Temperature (°Fahr.).			Extreme Shade Temperature (°Fahr.).		Extreme Range.	Extreme Temperature (°Fahr.).		Mean Daily Hours of Sunshine.
	Mean Max.	Mean Min.	Mean	Highest.	Lowest.		Highest in Sun.	Lowest on Grass.	
No. of years over which observation extends.	30(a)	30(a)	30(a)	64	64	64	50(b)	64	30(a)
January	85.5	69.1	77.3	109.8 26/40	58.8 4/93	51.0	169.0 2/37	49.9 4/93	7.6
February	84.6	68.7	76.6	105.7 21/25	58.5 23/31	47.2	165.2 6/10	49.1 22/31	7.4
March	82.3	66.2	74.3	99.4 5/19	52.4 29/13	47.0	162.5 6/39	45.4 29/13	7.0
April	79.1	61.5	70.3	95.2 (c)	44.4 25/25	50.8	153.8 11/16	36.7 24/25	7.1
May	73.7	55.6	64.7	90.3 21/23	41.3 24/99	49.0	147.0 1/10	29.8 8/97	6.6
June	69.4	51.5	60.5	88.9 19/18	36.3 29/08	52.6	136.0 3/18	25.4 23/88	6.3
July	68.6	49.4	59.0	84.3 23/46	36.1 (d)	48.2	146.1 20/15	23.9 11/90	6.8
August	71.1	50.0	60.6	91.0 14/46	37.4 6/87	53.6	141.9 20/17	27.1 9/99	7.9
September	75.5	54.8	65.1	100.9 22/43	40.7 1/96	60.2	155.5 26/03	30.4 1/89	8.2
October	79.2	60.3	69.8	101.4 18/93	43.3 3/99	58.1	157.4 31/18	34.9 8/89	8.4
November	82.3	64.6	73.4	106.1 18/13	48.5 2/05	57.6	162.3 7/89	38.8 1/05	8.2
December	84.5	67.5	76.0	105.9 26/93	56.4 13/12	49.5	165.9 28/42	49.1 3/94	8.2
Year Averages ..	78.0	59.9	69.0	—	—	—	—	—	7.5
Year Extremes ..	—	—	—	109.8 26/1/40	36.1 (d)	73.7	169.0 2/1/37	23.9 11/7/90	—

(a) Standard 30 years' normal (1911–1940). (b) From 1887 to March, 1947, excluding 1927 to 1936.
(c) 9/1896 and 5/1903. (d) 12/7/1894 and 2/7/1896.

HUMIDITY, RAINFALL AND FOG.

Month.	Vapour Pressure (inches)	Rel. Hum. (%) at 9 a.m.			Rainfall (inches).					Fog.
	Mean 9 a.m.	Mean.	Highest Mean.	Lowest Mean.	Mean Monthly.	Mean No. Days of Rain.	Greatest Monthly.	Least Monthly.	Greatest in One Day.	Mean No. of Days of Fog.
No. of years over which observation extends.	30(a)	30(a)	64	64	30(a)	30(a)	99	99(b)	99	30(a)
January	0.636	66	79	53	5.72	12	27.72 1895	0.32 1919	18.31 21/87	0.6
February	0.644	69	82	55	5.47	12	40.39 1893	0.58 1849	10.61 6/31	0.9
March	0.606	72	85	56	4.97	14	34.04 1870	Nil 1849	11.18 14/08	1.6
April	0.512	71	80	56	3.68	11	15.28 1867	0.04 1944	5.46 5/33	4.0
May	0.420	71	85	59	2.35	9	13.85 1876	Nil 1846	5.62 9/79	5.4
June	0.357	73	84	54	2.75	8	14.03 1873	Nil 1847	6.41 15/48	4.5
July	0.331	71	88	53	1.88	8	8.60 1950	Nil 1841	3.54 (c)	4.9
August	0.338	67	80	55	1.07	7	14.67 1879	Nil (d)	4.89 12/87	5.9
September	0.396	62	76	47	1.69	7	5.43 1886	0.10 1907	2.46 2/94	2.8
October	0.459	59	72	48	2.27	8	11.41 1949	0.14 1900	5.34 25/49	1.6
November	0.533	61	72	45	4.00	10	12.40 1917	Nil 1842	4.46 16/86	0.7
December	0.589	62	70	51	4.24	11	17.36 1942	0.35 1865	6.60 28/71	0.4
Year Totals ..	—	—	—	—	40.09	117	—	—	—	33.3
Year Averages ..	0.485	67	—	—	—	—	—	—	—	—
Year Extremes ..	—	—	85	45	—	—	40.39 2/1893	Nil (e)	18.31 21/1/87	—

(a) Standard 30 years' normal (1911–1940). (b) Records incomplete for various years between 1846 and 1859. (c) 15/1876 and 16/1889. (d) 1862, 1869, 1880. (e) Various months in various years.

CLIMATOLOGICAL DATA : SYDNEY, NEW SOUTH WALES.

LAT. 33° 52′ S., LONG. 151° 12′ E. HEIGHT ABOVE M.S.L. 138 FT.

BAROMETER, WIND, EVAPORATION, LIGHTNING, CLOUDS AND CLEAR DAYS.

Month.	Bar. corrected to 32° F. Mn. Sea Level and Standard Gravity from 9 a.m. and 3 p.m. readings.	Wind. (Height of Anemometer 58 feet.)					Mean Amount of Evaporation (inches).	No. of Days of Lightning.	Mean Amount of Clouds, 9 a.m., 3 p.m., 9 p.m.(a)	No. of Clear Days
		Average Miles per Hour.	Highest Mean Speed in One Day (miles per hour).	Highest Gust Speed (miles per hour)	Prevailing Direction.					
					9 a.m.	3 p.m.				
No. of years of observations.	30(b)	26(c)	37 (d)	31(e)	26(c)	26(c)	26(c)	30(f)	30(b)	30(b)
January ..	29.875	8.9	24.9 2/22	74	S	ENE	5.71	4.8	5.7	4.8
February ..	29.942	8.1	20.1 14/18	61	NE	ENE	4.68	3.3	5.5	5.4
March ..	30.009	7.5	20.7 10/44	58	W	ENE	4.05	2.8	5.3	5.8
April ..	30.063	7.0	23.4 19/27	72	W	NE	2.91	2.4	5.0	7.0
May ..	30.098	6.8	19.6 2/26	63	W	S	2.17	1.6	4.9	7.4
June ..	30.078	7.1	24.5 17/14	70	W	W	1.61	1.5	4.8	8.3
July ..	30.070	7.2	26.6 6/31	68	W	W	1.69	1.1	4.5	10.1
August ..	30.060	7.4	24.0 3/21	68	W	NE	2.30	2.1	3.9	11.1
September ..	30.018	8.0	22.3 19/17	70	W	NE	3.00	3.0	4.2	10.0
October ..	29.976	8.2	21.1 18/44	95	W	ENE	4.17	3.9	4.9	7.4
November ..	29.935	8.5	22.6 14/30	71	W & E	ENE	4.97	4.5	5.5	5.7
December ..	29.881	8.9	24.9 10/20	75	S	ENE	5.64	5.4	5.8	4.8
Year { Totals ..	—	—	—	—	—	—	42.90	36.4	—	87.8
Year { Averages	30.000	7.8	—	—	W	NE	—	—	5.0	—
Year { Extremes	—	—	26.6 6/7/31	95	—	—	—	—	—	—

(a) Scale 0-10. (b) Standard 30 years' normal (1911–1940). (c) 1915–1940. (d) 1914–1950. (e) 1917–1950. (f) 1921–1950.

TEMPERATURE AND SUNSHINE.

Month.	Mean Temperature (°Fahr.).			Extreme Shade Temperature (°Fahr.).		Extreme Range.	Extreme Temperature (°Fahr.).		Mean Daily Hours of Sunshine.
	Mean Max.	Mean Min.	Mean	Highest.	Lowest.		Highest in Sun.	Lowest on Grass.	
No. of years over which observation extends.	30(a)	30(a)	30(a)	92	92	92	84	92	30(b)
January	78.6	65.1	71.8	113.6 14/39	51.1 18/49	62.5	164.3 26/15	43.7 6/25	7.5
February	78.7	65.5	72.1	107.8 8/26	49.3 28/63	58.5	168.3 14/39	42.8 22/33	7.0
March	76.6	62.9	69.8	102.6 3/69	48.8 14/86	53.8	158.3 10/26	39.9 17/13	6.4
April	72.0	57.7	64.9	91.4 1/36	44.6 27/64	46.8	144.1 10/77	33.3 24/09	6.1
May	67.0	52.4	59.7	86.0 1/19	40.2 22/59	45.8	129.7 1/96	29.3 25/17	5.7
June	62.8	48.1	55.5	80.4 11/31	35.7 22/32	44.7	125.5 2/23	28.0 22/32	5.3
July	61.8	46.4	54.1	78.3 22/26	35.9 12/90	42.4	124.7 19/77	24.0 4/93	6.1
August	64.3	47.6	56.0	82.8 12/46	36.8 3/72	46.0	149.0 30/78	26.1 4/09	7.0
September	68.3	51.4	59.9	92.3 27/19	40.8 2/45	51.5	142.2 12/78	30.1 17/05	7.3
October	71.7	55.9	63.8	99.4 4/42	42.2 6/27	57.2	152.2 20/33	32.7 9/05	7.5
November	74.5	59.8	67.1	104.5 6/46	45.8 1/05	61.3	158.5 28/99	36.0 6/06	7.5
December	76.9	63.2	70.1	107.5 31/04	48.4 3/24	59.1	164.5 27/89	41.4 3/24	7.5
Year { Averages ..	71.1	56.3	63.7	—	—	—	—	—	6.8
Year { Extremes ..	—	—	—	113.6 14/1/39	35.7 22/6/32	77.9	168.3 14/2/39	24.0 4/7/93	—

(a) Standard 30 years' normal (1911–1940). (b) 1921–1950 (different exposure prior to 1921).

HUMIDITY, RAINFALL AND FOG.

Month.	Vapour Pressure (inches)	Rel. Hum. (%) at 9 a.m.			Rainfall (inches).					Fog.
	Mean 9 a.m.	Mean.	Highest Mean.	Lowest Mean.	Mean Monthly.	Mean No. of Days of Rain.	Greatest Monthly.	Least Monthly.	Greatest in One Day.	Mean No. of Days of Fog.
No. of years over which observation extends.	30(a)	30(a)	75	75	30(a)	30(a)	92	92	92	30(b)
January	0.537	65	78	58	3.86	13	15.26 1911	0.25 1932	7.08 13/11	0.4
February	0.560	68	81	60	3.15	12	18.56 1873	0.12 1939	8.90 25/73	0.8
March	0.527	71	85	62	4.44	13	20.52 1942	0.42 1876	11.05 28/42	1.8
April	0.441	73	87	63	5.65	14	24.49 1861	0.06 1868	7.52 29/60	2.8
May	0.362	75	90	63	4.98	12	23.03 1919	0.18 1860	8.36 28/89	3.7
June	0.303	76	89	65	3.68	11	25.30 1950	0.19 1904	5.17 16/84	3.3
July	0.282	74	88	63	4.89	12	13.23 1950	0.10 1946	7.80 7/31	2.9
August	0.288	68	84	54	2.41	10	14.89 1899	0.04 1885	5.33 2/60	2.3
September	0.325	62	79	49	2.77	11	14.05 1879	0.08 1882	5.69 10/79	1.0
October	0.378	60	77	46	2.80	11	11.13 1916	0.21 1867	6.37 13/02	0.6
November	0.433	60	79	42	2.54	11	9.88 1865	0.07 1915	4.23 19/00	0.6
December	0.501	63	77	51	3.63	13	15.82 1920	0.23 1913	4.75 13/10	0.4
Year { Totals ..	—	—	—	—	44.80	143	—	—	—	20.6
Year { Averages ..	0.393	68	—	—	—	—	—	—	—	—
Year { Extremes ..	—	—	90	42	—	—	25.30 6/1950	0.04 8/1885	11.05 28/3/42	—

(a) Standard 30 years' normal (1911–1940). (b) 1921–1950.

CLIMATOLOGICAL DATA : MELBOURNE, VICTORIA.

LAT. 37° 49′ S., LONG. 144° 58′ E. HEIGHT ABOVE M.S.L. 114 FT.

BAROMETER, WIND, EVAPORATION, LIGHTNING, CLOUDS AND CLEAR DAYS.

Month.	Bar. corrected to 32° F. Mn. Sea Level and Standard Gravity from 9 a.m. and 3 p.m. readings.	Wind. (Height of Anemometer 93 feet.) Average Miles per Hour.	Highest Mean Speed in One Day (miles per hour).	Highest Gust Speed (miles per hour).	Prevailing Direction. 9 a.m.	Prevailing Direction. 3 p.m.	Mean Amount of Evaporation (inches).	No. of Days of Lightning.	Mean Amount of Clouds, 9 a.m., 3 p.m., 9 p.m.(a)	No. of Clear Days.
No. of years of observations.	30(b)	11(c)	38	27	30(b)	30(b)	30(b)	30(b)	30(b)	30(b)
January	29.897	8.8	21.1 27/41	66	S & SW	S	6.55	1.8	4.9	6.8
February ..	29.950	8.3	19.0 13/47	66	N & S	S	5.10	2.3	4.8	6.4
March ..	30.025	7.8	17.2 19/50	66	N	S	4.26	1.8	5.3	5.5
April	30.092	7.2	19.9 16/43	67	N	S	2.53	1.2	5.9	4.6
May	30.113	7.4	20.0 4/44	72	N	N	1.57	0.5	6.1	3.4
June	30.097	7.4	22.8 16/47	60	N	N	1.18	0.4	6.5	2.7
July	30.079	8.6	20.9 9/44	68	N	N	1.16	0.3	6.3	2.9
August ..	30.048	8.2	21.3 20/42	64	N	N	1.54	0.9	6.0	3.1
September ..	30.001	8.5	18.3 6/48	69	N & W	N & S	2.41	1.3	5.9	3.3
October ..	29.968	8.3	18.0 27/50	69	N	S	3.54	1.8	6.1	3.8
November ..	29.951	8.4	19.4 4/50	65	S & SW	S	4.62	2.3	6.0	3.6
December ..	29.896	8.6	18.9 1/34	61	S & SW	S	5.85	1.9	5.6	4.5
Year Totals ..	—	—	—	—	—	—	40.31	16.5	—	50.6
Year Averages	30.010	8.1	—	—	N	S	—	—	5.8	—
Year Extremes	—	—	22.8 16/6/47	72	—	—	—	—	—	—

(a) Scale 0–10. (b) Standard 30 years' normal (1911–1940). (c) Early records not comparable.

TEMPERATURE AND SUNSHINE.

Month.	Mean Temperature (°Fahr.). Mean Max.	Mean Min.	Mean	Extreme Shade Temperature (°Fahr.). Highest.	Lowest.	Extreme Range.	Extreme Temperature (°Fahr.). Highest in Sun.	Lowest on Grass.	Mean Daily Hours of Sunshine.
No. of years over which observation extends.	30(a)	30(a)	30(a)	95	95	95	86(b)	91	35(c)
January	77.7	56.9	67.3	114.1 13/39	42.0 28/85	72.1	178.5 14/62	30.2 28/85	7.8
February	78.6	58.0	68.3	109.5 7/01	40.2 24/24	69.3	167.5 15/70	30.9 6/91	7.4
March	74.9	55.2	65.1	107.0 11/40	37.1 17/84	69.9	164.5 1/68	28.9 (d)	6.5
April	67.9	50.8	59.3	94.8 5/38	34.8 24/88	60.0	152.0 8/61	25.0 23/97	5.0
May	62.0	46.9	54.5	83.7 7/05	29.9 29/16	53.8	142.6 2/59	21.1 26/16	4.1
June	56.8	43.8	50.3	72.2 1/07	28.0 11/66	44.2	129.0 11/61	19.9 30/29	3.4
July	56.2	42.6	49.4	69.3 22/26	27.0 21/69	42.3	125.8 27/80	20.5 12/03	3.7
August	58.7	43.7	51.2	77.0 20/85	28.3 11/63	48.7	137.4 29/69	21.3 14/02	4.6
September	63.3	46.0	54.7	88.6 28/28	31.0 3/40	57.6	142.1 20/67	22.8 8/18	5.5
October	67.9	48.7	58.3	98.4 24/14	32.1 3/71	66.3	154.3 28/68	24.8 22/18	5.8
November	71.3	51.8	61.5	105.7 27/94	36.5 2/96	69.2	159.6 29/65	24.6 2/96	6.2
December	75.4	55.3	65.3	110.7 15/76	40.0 4/70	70.7	170.3 20/69	33.2 1/04	7.0
Year Averages ..	67.6	50.0	58.8	—	—	—	—	—	5.6
Year Extremes ..	—	—	—	114.1 13/1/39	27.0 21/7/69	87.1	178.5 14/1/62	19.9 30/6/29	—

(a) Standard 30 years' normal (1911–1940). (b) Records discontinued, 1946. (c) 1916–1950.
(d) 17/1884 and 20/1897.

HUMIDITY, RAINFALL AND FOG.

Month.	Vapour Pressure (inches) Mean 9 a.m.	Rel. Hum. (%) at 9 a.m. Mean.	Highest Mean.	Lowest Mean.	Rainfall (inches). Mean Monthly.	Mean No. of Days of Rain.	Greatest Monthly.	Least Monthly.	Greatest in One Day.	Fog. Mean No. of Days of Fog.
No. of years over which observation extends.	30(a)	30(a)	43	43	30(a)	30(a)	95	95	95	30(a)
January	0.382	58	65	50	1.88	9	6.66 1941	0.01 1932	2.97 9/97	0.1
February	0.417	62	70	48	2.00	8	7.72 1939	0.03 1870	3.44 26/46	0.3
March	0.385	64	76	50	2.22	9	7.50 1911	0.14 1934	3.55 5/19	1.1
April	0.351	72	82	66	2.30	13	6.71 1901	Nil 1923	2.28 22/01	2.3
May	0.311	79	86	70	1.94	14	5.60 1942	0.14 1934	1.85 7/91	6.8
June	0.276	83	92	75	2.06	16	4.51 1859	0.73 1877	1.74 21/04	6.5
July	0.264	82	86	75	1.93	17	7.02 1891	0.57 1902	2.71 12/91	6.5
August	0.271	76	82	65	2.02	17	4.35 1939	0.48 1903	1.04 26/24	3.7
September	0.288	68	76	60	2.20	15	7.93 1916	0.52 1907	2.62 12/80	1.3
October	0.307	62	67	52	2.63	14	7.61 1869	0.29 1914	3.00 17/69	0.3
November	0.336	60	69	52	2.33	13	6.71 1916	0.25 1895	2.57 16/76	0.3
December	0.373	59	69	48	2.38	11	7.18 1863	0.11 1904	3.20 1/34	0.2
Year Totals ..	—	—	—	—	25.89	156	—	—	—	29.4
Year Averages ..	0.323	69	—	—	—	—	—	—	—	—
Year Extremes ..	—	—	92	48	—	—	7.93 9/1916	Nil 4/1923	3.55 5/3/19	—

(a) Standard 30 years' normal (1911–1940).

CLIMATOLOGICAL DATA : HOBART, TASMANIA.

LAT. 42° 53′ S., LONG. 147° 30′ E. HEIGHT ABOVE M.S.L. 177 FT.

BAROMETER, WIND, EVAPORATION, LIGHTNING, CLOUDS AND CLEAR DAYS.

Month.	Bar. corrected to 32° F. Mn. Sea Level and Standard Gravity from 9 a.m. and 3 p.m. readings.	Wind. (Height of Anemometer 40 feet.) Average Miles per Hour.	Highest Mean Speed in One Day (miles per hour).	Highest Gust Speed (miles per hour).	Prevailing Direction. 9 a.m.	Prevailing Direction. 3 p.m.	Mean Amount of Evaporation (inches).	No. of Days of Lightning.	Mean Amount of Clouds, 9 a.m., 3 p.m., 9 p.m.(a)	No. of Clear Days.
No. of years of observations.	30(b)	30(b)	60	60	30(b)	30(b)	30(b)	30(b)	30(b)	30(b)
January ..	29.819	8.0	20.8 30/10	76	NNW	SSE	4.84	0.9	6.4	1.9
February ..	29.913	7.2	25.2 4/27	63	NNW	SSE	3.71	1.0	6.2	2.3
March ..	29.961	6.8	21.4 13/38	68	NW	SSE	3.10	1.2	6.1	2.4
April ..	29.997	6.7	22.2 27/26	74	NW	W	1.98	0.7	6.5	1.7
May ..	30.009	6.3	20.2 20/36	70	NNW	NW	1.37	0.4	6.1	2.4
June ..	29.986	6.2	23.7 27/20	71	NW	NW	0.91	0.4	6.2	2.4
July ..	29.958	6.5	20.8 19/35	78	NNW	NNW	0.94	0.3	6.1	2.0
August ..	29.906	6.8	25.5 19/26	87	NNW	NW	1.28	0.4	6.1	2.1
September ..	29.860	7.9	21.5 26/15	84	NNW	NW	1.97	0.7	6.3	1.5
October ..	29.833	8.2	19.2 8/12	74	NNW	SW	3.05	0.6	6.6	1.0
November ..	29.831	7.9	21.2 18/15	73	NNW	S	3.77	0.7	6.4	1.3
December ..	29.816	7.6	23.4 1/34	70	NNW	SSE	4.37	0.5	6.8	1.1
Year: Totals ..	—	—	—	—	—	—	31.29	7.8	—	22.1
Year: Averages	29.907	7.2	—	—	NNW	W	—	—	6.3	—
Year: Extremes	—	—	25.5 19/8/26	87	—	—	—	—	—	—

(a) Scale 0–10. (b) Standard 30 years' normal (1911–1940).

TEMPERATURE AND SUNSHINE.

Month.	Mean Temperature (°Fahr.) Mean Max.	Mean Min.	Mean	Extreme Shade Temperature (°Fahr.). Highest.	Lowest.	Extreme Range.	Extreme Temperature (°Fahr.). Highest in Sun.	Lowest on Grass.	Mean Daily Hours of Sunshine.
No. of years over which observation extends.	30(a)	30(a)	30(a)	67(b)	67(b)	67(b)	57(c)	67(b)	30
January	69.8	52.4	61.0	105.0 1/00	40.1 (d)	64.9	160.0 (e)	30.6 19/97	7.7
February	70.6	53.7	62.2	104.4 12/99	39.0 20/87	65.4	165.0 24/98	28.3 —/87	7.1
March	67.5	51.3	59.4	99.1 13/40	35.2 31/26	63.9	150.9 26/44	27.5 30/02	6.4
April	62.2	48.0	55.1	87.1 1/41	33.3 24/88	53.8	142.0 18/93	25.0 —/86	5.0
May	57.8	44.6	51.2	77.8 5/21	29.2 20/02	48.6	128.0 (f)	20.0 19/02	4.4
June	52.8	41.2	47.0	69.2 1/07	29.2 28/44	40.0	122.0 12/94	21.0 6/87	4.0
July	52.7	40.6	46.6	66.1 14/34	27.7 11/95	38.4	121.0 12/93	18.7 16/86	4.4
August	55.4	41.7	48.7	71.6 28/14	30.5 (g)	41.1	129.0 —/87	20.1 7/09	5.1
September	59.0	43.7	51.4	81.7 23/26	31.0 16/97	50.7	138.0 23/93	18.3 16/26	5.9
October	62.5	46.1	54.3	92.0 24/14	32.0 12/89	60.0	156.0 9/93	23.8 (h)	6.1
November	65.0	48.2	56.6	98.3 26/37	35.0 16/41	63.3	154.0 19/92	26.0 1/08	7.2
December	67.9	51.3	59.6	105.2 30/97	38.0 3/06	67.2	161.5 10/39	27.2 —/86	7.3
Year: Averages ..	61.9	46.9	54.4	—	—	—	—	—	5.9
Year: Extremes ..	—	—	—	105.2 30/12/97	27.7 11/7/95	77.5	165.0 24/2/98	18.3 16/9/26	—

(a) Standard 30 years' normal (1911–1940). (b) Records 1855–1882 not comparable. (c) Period 1934–1938 not comparable; records discontinued, 1946. (d) 9/37 and 11/37. (e) 5/86 and 13/05. (f) —/89 and —/93. (g) 4/97 and 7/09. (h) 1/86 and —/99.

HUMIDITY, RAINFALL AND FOG.

Month.	Vapour Pressure (inches) Mean 9 a.m.	Rel. Hum. (%) at 9 a.m. Mean.	Highest Mean.	Lowest Mean.	Rainfall (inches). Mean Monthly.	Mean No. of Days of Rain.	Greatest Monthly.	Least Monthly.	Greatest in One Day.	Fog. Mean No. of Days of Fog.
No. of years over which observation extends.	30(a)	31	64	64	30(a)	30(a)	67(b)	67(b)	67(b)	29
January	0.309	57	72	46	1.82	13	5.91 1893	0.17 1915	2.96 30/16	0.0
February	0.342	61	77	48	1.68	10	4.96 1935	0.11 1914	2.18 5/38	0.0
March	0.323	65	77	52	2.13	13	10.05 1946	0.29 1943	3.47 17/46	0.3
April	0.290	69	84	58	2.31	14	8.50 1935	0.07 1904	5.02 20/09	0.2
May	0.263	78	89	65	1.71	14	6.37 1905	0.14 1913	1.75 2/93	0.9
June	0.233	78	91	68	2.25	16	8.15 1889	0.28 1886	4.11 13/89	0.7
July	0.227	78	94	72	2.14	17	6.02 1922	0.17 1950	2.51 18/22	0.9
August	0.232	72	92	69	1.82	18	6.32 1946	0.30 1892	2.28 14/90	0.4
September	0.240	64	85	58	1.90	17	4.47 1928	0.40 1891	1.57 24/85	0.1
October	0.258	60	73	51	2.52	18	7.60 1947	0.39 1914	2.58 4/06	0.0
November	0.274	57	72	50	2.23	16	7.39 1885	0.33 1921	3.70 30/85	0.0
December	0.306	58	67	45	2.52	14	7.72 1916	0.17 1931	3.33 5/41	0.0
Year: Totals ..	—	—	—	—	25.03	180	—	—	—	3.5
Year: Averages ..	0.271	66	—	—	—	—	—	—	—	—
Year: Extremes ..	—	—	94	45	—	—	10.05 3/1946	0.07 4/1904	5.02 20/4/09	—

(a) Standard 30 years' normal (1911–1940). (b) Records prior to 1883 not comparable.

§ 3. Standard Times in Australia.

Prior to 1895 the official time adopted in the several colonies was for most purposes the mean solar time of the capital city of each.

In November, 1892, an intercolonial conference of surveyors was held in Melbourne to consider, among other things, the advantages of introducing the system of standard time. In this system it was proposed to make the initial meridian that of Greenwich and to change local standard time by whole hours according to the longitude east or west of that of Greenwich. Thus for every difference of 15° in longitude a change of one hour would be required. The minutes and seconds would then be identical everywhere.

To give effect to this proposal it was suggested that Australia should be divided into three zones, the standard times for which should be respectively the mean solar times of the meridians of 120°, 135° and 150° E. longitude, thus giving standard times 8, 9 and 10 hours respectively ahead of Greenwich time. It was proposed that the 120° zone should comprise Western Australia, that the 135° zone should comprise South Australia and the Northern Territory, and that the 150° zone should comprise Queensland, New South Wales, Victoria and Tasmania.

The matter was also considered by several intercolonial postal conferences, and eventually in 1894 and 1895 legislation was enacted by each of the colonies in accord with the recommendations of the Surveyors' Conference of 1892.

In 1898 the South Australian legislature amended its earlier provision, and adopted the mean solar time of the meridian 142° 30′ E. longitude as the standard time for that colony, thus reducing the difference between the standard time of Adelaide and that of the capitals of the eastern colonies from an hour to half-an-hour. Particulars concerning these enactments are as follows :—

STANDARD TIMES IN AUSTRALIA.

State.	Date when Act came into Operation.	Meridian Selected.	Time Ahead of Greenwich.
			Hours.
New South Wales ..	1st February, 1895 ..	150° E.	10
Victoria	1st February, 1895 ..	150° E.	10
Queensland	1st January, 1895 ..	150° E.	10
South Australia ..	1st February, 1895 ..	135° E.	9
South Australia ..	1st May, 1899	142° 30′ E.	9½
Western Australia ..	1st December, 1895 ..	120° E.	8
Tasmania	1st September, 1895 ..	150° E.	10

The standard time in the Australian Capital Territory is the same as in New South Wales, and in the Northern Territory the same as in South Australia.

Consequent upon the opening of the Trans-Australian Railway an arrangement was made by which the change of time between South Australia and Western Australia (namely, 1½ hours) is divided into two changes of 45 minutes each. Going east from Kalgoorlie the first change is made at Rawlinna, 235.18 miles out, where the time is put forward by 45 minutes. The second change of the same amount is made at Tarcoola, 794.05 miles out. Thenceforward South Australian standard time is kept. The Commonwealth Observatory at Mount Stromlo, Canberra, and the State Observatories at Sydney and Perth derive time by astronomical observations.

Time signals are originated by these Observatories and by the Postmaster-General's Research Laboratory, Melbourne. The latter participates with the Commonwealth Observatory in the Commonwealth Time Service.

CHAPTER III.

GENERAL GOVERNMENT.

§ 1. Scheme of Parliamentary Government.

1. **General.**—The legislative power of the Commonwealth is vested in the Parliament of the Commonwealth, which consists of the Sovereign, the Senate, and the House of Representatives. The Sovereign is represented throughout the Commonwealth by the Governor-General who, subject to the Constitution of the Commonwealth, has such powers and functions as the Sovereign is pleased to assign to him. In each State there is a State Governor, who is the representative of the Sovereign for the State, and who exercises such powers within the State as are conferred upon him by the Letters Patent which constitute his office, and by the instructions which inform him in detail of the manner in which his duties are to be fulfilled. The Legislature in each State was bi-cameral till 1922, in which year the Queensland Parliament became uni-cameral. In the bi-cameral States it consists of (*a*) a Legislative Council and (*b*) a Legislative Assembly, or House of Assembly. In Queensland the Legislative Assembly constitutes the legislature. In the Commonwealth Parliament the Upper House is known as the Senate, and in the State Parliaments as the Legislative Council. The Lower House in the bi-cameral Parliaments is known as follows :—In the Commonwealth Parliament as the House of Representatives, in the State Parliaments of New South Wales, Victoria and Western Australia as the Legislative Assembly, and in the State Parliaments of South Australia and Tasmania as the House of Assembly. The legislative powers of these Parliaments are delimited by the Commonwealth and the State Constitutions. The Assembly (Queensland as pointed out is uni-cameral) which is the larger House, is always elective, the franchise extending to adult British subjects with certain residential qualifications. The Council in each of the States other than New South Wales is elected by the people of that State, the constituencies being differently arranged and in general, some property or special qualification for the electorate being required. In Victoria, however, under the Legislative Council Reform Act passed in October, 1950, adult suffrage was adopted for Legislative Council elections. In the case of New South Wales, the Council is elected by the members of each House of Parliament at a simultaneous sitting. In the Federal Parliament the qualifications for the franchise are identical for both Houses.

2. **Powers and Functions of the Governor-General and of the State Governors.**—A detailed statement of the powers and functions of the Governor-General and of the State Governors appears in preceding issues of the Official Year Book (*see* No. 18, pp. 78–80). For the names of the Governors-General since the inception of the Commonwealth and of the present State Governors, *see* § 4. following.

3. **The Cabinet and Executive Government.**—(i) *General.* Both in the Commonwealth and in the States, executive government is based on the system which was evolved in Britain in the 18th century, and which is generally known as "Cabinet" or "responsible" government. Its essence is that the head of the State (His Majesty the King, and his representative, the Governor-General or Governor) should perform Governmental acts on the advice of his Ministers; that he should choose his principal

Ministers of State from members of Parliament belonging to the party, or coalition of parties, commanding a majority in the popular House; that the Ministry so chosen should be collectively responsible to that House for the government of the country; and that the Ministry should resign if it ceases to command a majority there.

The Cabinet system operates by means, chiefly, of constitutional conventions, customs or understandings, and of institutions that do not form part of the legal structure of the government at all. The constitutions of the Commonwealth and the States make fuller legal provision for the Cabinet system than the British Constitution does—for example, by requiring that Ministers shall be, or within a prescribed period become, members of the Legislature. In general, however, the legal structure of the executive government remains the same as it was before the establishment of the Cabinet system.

Formally, the executive power is vested in the Commonwealth in the Governor-General, and in the States in the Governor. In each case he is advised by an Executive Council, which, however, meets only for certain formal purposes, as explained below. The whole policy of a Ministry is, in practice, determined by the Ministers of State, meeting, without the Governor-General or Governor, under the chairmanship of the Prime Minister or Premier. This group of Ministers is known as the Cabinet.

(ii) *The Cabinet.* This body does not form part of the legal mechanism of government. Its meetings are private and deliberative. The actual Ministers of the day alone are present, no records of the meetings are made public, and the decisions taken have, in themselves, no legal effect. In Australia, all Ministers are members of the Cabinet. As Ministers are the leaders of the party or parties commanding a majority in the popular House, the Cabinet substantially controls, in ordinary circumstances, not only the general legislative programme of Parliament, but the whole course of Parliamentary proceedings. In effect, though not in form, the Cabinet, by reason of the fact that all Ministers are members of the Executive Council, is also the dominant element in the executive government of the country. Even in summoning, proroguing or dissolving Parliament, the Governor-General or Governor is usually guided by the advice tendered him by the Cabinet, through the Prime Minister or Premier, though legally the discretion is vested in the Governor-General or Governor himself.

(iii) *The Executive Council.* This body is presided over by the Governor-General or Governor, the members thereof holding office during his pleasure. All Ministers of State are *ex officio* members of the Executive Council. In the Commonwealth, and also in the States of Victoria and Tasmania, Ministers remain members of the Executive Council on leaving office, but are not summoned to attend its meetings; for it is an essential feature of the Cabinet system that attendance should be limited to the Ministers of the day. The meetings of the Executive Council are formal and official in character, and a record of proceedings is kept by the Secretary or Clerk. At Executive Council meetings, the decisions of the Cabinet are (where necessary) given legal form; appointments made; resignations accepted; proclamations issued, and regulations and the like approved.

(iv) *The Appointment of Ministers.* Legally, Ministers hold office during the pleasure of the Governor-General or Governor. In practice, however, the discretion of the King's representative in the choice of Ministers is limited by the conventions on which the Cabinet system rests. Australian practice follows, broadly, that of the United Kingdom. When a Ministry resigns, the Crown's custom is to send for the leader of the party which commands, or is likely to be able to command, a majority in the popular House, and to commission him, as Prime Minister or Premier, to "form a Ministry"—that is, to nominate other persons to be appointed as Ministers of State and to serve as his colleagues in the Cabinet.

The customary procedure in connexion with the resignation or acceptance of office by a Ministry is described fully in previous issues of the Official Year Book (*see* No. 6, p. 942). It may be added, however, that subsequent legislation has, in most of the States, obviated the necessity of responsible Ministers vacating their seats in Parliament on appointment to office.

(v) *Ministers in Upper and Lower Houses.* The following table shows the number of Ministers with seats in the Upper or Lower Houses of each Parliament in July, 1951 :—

AUSTRALIAN PARLIAMENTS : MINISTERS IN UPPER OR LOWER HOUSES, JULY, 1951.

Ministers with Seats in—	C'wealth.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Total.
The Upper House ..	5	2	4	(*a*)	2	2	..	15
The Lower House ..	15	14	9	11	4	8	9	70
Total ..	20	16	13	11	6	10	9	85

(*a*) Abolished in 1922.

For the names of the present occupants of ministerial office in each of the Parliaments of Australia, and also for particulars of earlier Commonwealth ministries, *see* § 4. of this chapter.

4. **Number and Salary of Members of the Legislatures.**—The following table shows the number and annual salary of members in each of the legislative chambers in July, 1951 :—

AUSTRALIAN PARLIAMENTS : MEMBERS AND ANNUAL SALARIES, JULY, 1951.

Members in—	C'wealth.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Total.
NUMBER OF MEMBERS.								
Upper House ..	60	60	34	(*b*)	20	30	19	223
Lower House ..	123	94	65	75	39	50	30	476
Total ..	183	154	99	75	59	80	49	699
ANNUAL SALARY. (£.)								
Upper House ..	1,500	300	(*a*)1,050	(*b*)	(*d*) 900–975	(*e*)1,000	(*f*)800–1,050	..
Lower House ..	1,500	1,375	(*a*)1,050	(*c*)1,375	(*d*) 900–975	(*e*)1,000	(*f*) 850–1,050	..

(*a*) Increased from £750 (Upper House) as from December, 1950 and £650 (Lower House) as from July, 1950. Plus £100 for urban and country electorates (i.e., excluding Metropolitan Electoral Districts). Subject to automatic adjustment in accordance with variations in the cost of living. (*b*) Abolished in 1922. (*c*) Increased from £1,050 as from December, 1950. (*d*) According to distance of electorate from Adelaide. (*e*) Increased from £960 plus £50 in the case of a country member as from September, 1950. Subject to adjustment in accordance with variations of the State basic wage. Plus £50 where any part of electorate is more than 50 miles from Perth. (*f*) According to area of electorate and distance from the Capital.

The use of the expressions " Upper House " and " Lower House " in the statement above, though not justified constitutionally, is convenient, inasmuch as the legislative chambers are known by different names in the Commonwealth and in some of the States.

5. **Enactments of the Parliament.**—In the Commonwealth all laws are enacted in the name of the Sovereign, the Senate, and the House of Representatives. The subjects with respect to which the Commonwealth Parliament is empowered to make laws are enumerated in the Constitution. In the States laws are enacted in the name of the Sovereign by and with the consent of the Legislative Council (except in Queensland) and Legislative Assembly or House of Assembly. The Governor-General or the State Governor acts on behalf of, and in the name of, the Sovereign, giving the Royal Assent

to or vetoing Bills passed by the Legislatures, or reserving them for the special consideration of the Sovereign. In the States the Councils and Assemblies are empowered generally, subject to the Commonwealth Constitution, to make laws in and for their respective States, in all cases whatsoever. Subject to certain limitations, they may alter, repeal, or vary their Constitutions. Where a law of a State is inconsistent with a law of the Commonwealth the latter prevails, and the former is, to the extent of the inconsistency, invalid.

§ 2. Parliaments and Elections.

1. **Commonwealth.**—(i) *Qualifications for Membership and for Franchise—Commonwealth Parliament.* Qualifications necessary for membership of either House of the Commonwealth Parliament are possessed by any British subject, twenty-one years of age or over, who has resided in the Commonwealth for at least three years and who is, or is qualified to become, an elector of the Commonwealth. Qualifications for Commonwealth franchise are possessed by any British subject, not under twenty-one years of age, who has lived in Australia for six months continuously. Enrolment and voting are compulsory. A British subject member of the Defence Force of the Commonwealth on active service is entitled to vote at Commonwealth elections whether enrolled or not, and if he is serving or has served outside Australia, irrespective of age.

Disqualification of persons otherwise eligible as members of either Commonwealth House is mainly on the grounds of membership of the other House, allegiance to a foreign power, being attainted of treason, being convicted and under sentence for any offence punishable by imprisonment for one year or longer, being an undischarged bankrupt or insolvent, holding office of profit under the Crown with certain exceptions, or having pecuniary interest in any agreement with the public service of the Commonwealth except as a member of an incorporated company of more than 25 persons. Excluded from the franchise are persons of unsound mind, attainted of treason, or convicted and under sentence for any offence punishable by imprisonment for one year or longer. In the main, these or similar grounds for disqualification apply also to State Parliament membership and franchise. In some States judges and ministers of religion are included amongst those specifically disqualified from membership, and in two States certain aboriginal natives are excluded from the franchise.

(ii) *The Commonwealth Government.* From the establishment of the Commonwealth until 1949 the Senate consisted of 36 members, six being returned by each of the original federating States. The Constitution empowers Parliament to increase or decrease the size of the Parliament and, as the population of the Commonwealth had more than doubled since its inception, the Parliament enacted legislation in 1948 enlarging both Houses of Parliament and providing a representation ratio nearer to the proportion which existed at Federation. Thus the Representation Act 1948 provides that there shall be ten Senators from each State instead of six, increasing the total to 60 Senators. To effect this transition in the Senate, seven Senators were elected from each State at the elections of 1949, four taking office immediately the Senate sat after the election, the remaining three commencing their term on the usual date—1st July, 1950. Members of this Chamber are normally elected for the term of six years, but half the members retire at the end of every third year, although they are eligible for re-election. Accordingly, at each future periodical election of Senators, five Senators will normally be elected in each State, making 30 to be elected at each such election.

In accordance with the Constitution, the total number of members of the House of Representatives must be as nearly as practicable double that of the Senate. Correspondingly, in terms of the Constitution and the Representation Act 1905–38, from the date of the 1949 elections the number of members in the House of Representatives was increased from 74 to 121 (excluding the members for the internal Territories). As the States are represented in the House of Representatives on a population basis, the numbers were increased as follows:—New South Wales—from 28 to 47; Victoria—20 to 33; Queensland—10 to 18; South Australia—6 to 10; Western Australia—5 to 8; Tasmania—5, no increase: total—74 to 121. The increase in the number of members of Parliament necessitated a redistribution of seats and a redetermination of electoral boundaries. This was carried out by the Distribution Commissioners in each State on a quota basis, but taking into account community or diversity of interest, means of communication, physical features, existing boundaries of divisions and sub-divisions, and State electoral boundaries.

Since the general elections of 1922 the Northern Territory has been represented by one member in the House of Representatives. The Australian Capital Territory Representation Act 1948 gave similar representation to the Australian Capital Territory as from the elections of 1949. The members for the Territories may join in the debates but are not entitled to vote, except on a motion for the disallowance of any ordinance of the Territory or on any amendment to such motion.

The Constitution provides for a minimum of five members for each original State. Members of the House of Representatives are elected for the duration of the Parliament, which is limited to three years. In elections for Senators, the whole State constitutes the electorate. For the purposes of elections for the House of Representatives, the State is divided into single electorates corresponding in number with the number of members to which the State is entitled. Further information regarding the Senate and the House of Representatives is given in earlier issues of the Official Year Book.

(iii) *Commonwealth Elections.* There have been nineteen complete Parliaments since the inauguration of Federation. The fifth Parliament, which was opened on 9th July, 1913, was dissolved on 30th July, 1914 in somewhat unusual circumstances, when, for the first time in the history of the Commonwealth, a deadlock occurred between the Senate and the House of Representatives, and, in accordance with Section 57 of the Constitution which provides for such an eventuality, both Houses were dissolved by the Governor-General. Until 1927 the Parliament met at Melbourne; it now meets at Canberra, the first meeting at Parliament House, Canberra, being opened by H.M. the King, then Duke of York, on 9th May, 1927. The eighteenth Parliament opened on 6th November, 1946, and was dissolved on 31st October, 1949. The following are particulars of the succeeding election:—

COMMONWEALTH ELECTION, 10th DECEMBER, 1949.

State, etc.	Electors Enrolled.(a)			Electors who Voted.(a)			Percentage of Electors who Voted.		
	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.
N.S. Wales ..	938,953	977,793	1,916,746	911,466	937,106	1,848,572	97.07	95.84	96.44
Victoria ..	662,535	707,286	1,369,821	640,057	673,737	1,313,794	96.61	95.26	95.91
Queensland ..	355,119	341,910	697,029	335,289	323,318	658,607	94.42	94.56	94.49
South Australia	211,329	222,991	434,320	205,120	215,317	420,437	97.06	96.56	96.80
W. Australia ..	158,433	157,338	315,771	152,195	149,134	301,329	96.06	94.79	95.43
Tasmania ..	80,201	81,339	161,540	77,588	77,473	155,061	96.74	95.25	95.99
Nor. Territory	4,424	2,162	6,586	3,471	1,847	5,318	78.46	85.43	80.75
Aust. Cap. Terr.	6,403	5,438	11,841	6,063	5,179	11,242	94.69	95.24	94.94
Total ..	2,417,397	2,496,257	4,913,654	2,331,249	2,383,111	4,714,360	96.44	95.47	95.94

(a) All electorates contested, and, except for the Territories, numbers identical for Senate and House of Representatives.

There were 505,275 informal votes (11 per cent.) cast for the Senate election, and 93,604 (2 per cent.) for the House of Representatives election.

The nineteenth Parliament opened on 22nd February, 1950, but on 19th March, 1951, in its first session, a double dissolution was proclaimed for the second time since the inception of the Commonwealth. The Governor-General granted the Prime Minister's request for the dissolution on the ground that the Senate, by referring the Commonwealth Bank Bill 1950 (No. 2) to a Select Committee (after amending an identical Bill more than three months earlier in a manner unacceptable to the House of Representatives) had

" failed to pass it ", thereby providing conditions enabling Section 57 of the Constitution to operate for the purpose of overcoming the deadlock between the two Houses. Particulars of the ensuing election are as follows :—

COMMONWEALTH ELECTION, 28th APRIL, 1951.(a)

State, etc.	Electors Enrolled.			Electors who Voted.			Percentage of Electors who Voted.		
	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.
N.S. Wales ..	950,460	990,867	1,941,327	918,888	945,351	1,864,239	96.68	95.41	96.03
Victoria ..	673,834	714,282	1,388,116	650,211	682,128	1,332,339	96.49	95.50	95.98
Queensland	359,874 (340,794)	350,644 (331,255)	710,518 (672,049)	342,559 (323,809)	334,291 (315,524)	676,850 (639,333)	95.19 (95.02)	95.34 (95.25)	95.26 (95.13)
S. Australia	213,792 (192,344)	226,662 (203,238)	440,454 (395,582)	208,648 (187,534)	218,945 (196,548)	427,593 (384,082)	97.59 (97.50)	96.60 (96.71)	97.08 (97.09)
W. Aust.	159,318 (142,110)	158,942 (145,239)	318,260 (287,349)	153,197 (137,342)	151,129 (138,503)	304,326 (275,845)	96.16 (96.64)	95.08 (95.36)	95.62 (96.00)
Tasmania ..	81,343	82,657	164,000	79,137	79,431	158,568	97.29	96.10	96.69
Nor. Terr. ..	(4,261)	(2,255)	(6,516)	(3,280)	(1,830)	(5,110)	(76.98)	(81.15)	(78.42)
Aust. Cap. Ter.	(6,838)	(5,936)	(12,774)	(6,342)	(5,557)	(11,899)	(92.75)	(93.62)	(93.15)
Total	2,438,621 (2,391,984)	2,524,054 (2,475,729)	4,962,675 (4,867,713)	2,352,640 (2,306,543)	2,411,275 (2,364,872)	4,763,915 (4,671,415)	96.47 (96.43)	95.53 (95.52)	95.99 (95.97)

(a) Figures in parentheses for the States of Queensland, South Australia and Western Australia refer to contested electorates only, in each of these States one electorate not having been contested. For the Territories, which do not possess a vote for the Senate, the figures refer to the House of Representatives election only. In other States, numbers were identical for Senate and House of Representatives. For the totals, the figures in parentheses represent the total electors enrolled for, and the total electors who voted in, the House of Representatives election, excluding non-contested electorates.

There were 339,678 informal votes (7 per cent.) cast for the Senate election and 88,671 (2 per cent.) for the House of Representatives election.

The first session of the twentieth Parliament commenced on 12th June, 1951.

The system of voting for the House of Representatives is preferential, and for the Senate, since the passing of the Commonwealth Electoral Act 1948, proportional representation (*see* par. iv below). Previously it also had been preferential.

For the first time two women were elected to the Commonwealth Parliament in 1943, one to the Senate and the other to the House of Representatives.

(iv) *Proportional Representation in Senate Elections.* The Commonwealth Electoral Act 1948, introduced with the Representation Act 1948 to enlarge the Commonwealth Parliament (*see* above), changed the system of scrutiny and counting of votes in Senate elections from preferential to that of proportional representation. Under the new system each candidate, in order to become elected, must obtain a specified " quota " of first preference votes, any votes in excess of this " quota " being transferred to continuing candidates in proportion to the voters' preferences. For a description of the method of obtaining the " quota " and of the procedure of transferring " surplus " votes, *see* Official Year Book No. 38, pp. 82–3.

(v) *Commonwealth Referenda.* According to Section 128 of the Constitution, any proposed law for the alteration of the Constitution must, in addition to being passed by an absolute majority of each House of Parliament, be submitted to a referendum of the electors in each State, and must further be approved by a majority of the States and of the electors who voted, before it can be presented for Royal Assent. So far 23 proposals have been submitted to referenda and the consent of the electors has been received in four cases only, the first in relation to the election of Senators in 1906, the second and third in respect of State Debts—one in 1910 and the other in 1928—and the fourth in respect of Social Services in 1946. Details of the various referenda and the voting thereon were given in previous issues of the Official Year Book (*see* No. 18, p. 87, No. 31, p. 67, No. 35, p. 60, No. 36, p. 61, No. 37, pp. 64–5 and No. 38, p. 84.)

For details of the voting in the referendum held on 22nd September, 1951 to determine whether the Constitution should be amended so as to grant the Commonwealth Government powers to deal with Communists in Australia, *see* Appendix to this volume.

(vi) *Broadcast of Parliamentary Proceedings.* The proceedings of both Houses of the Commonwealth Parliament are regularly broadcast at certain specified times by the national broadcasting system. For some particulars of the origin of this practice *see* Official Year Book No. 37, p. 65.

2. **State Elections.**—(i) *Latest in each State.* (*a*) *Upper Houses.* The following table shows particulars of the voting at the most recent elections for the Upper Houses or Legislative Councils in the States of Victoria, South Australia and Western Australia. In New South Wales the electorate for the Legislative Council comprises the members of both Houses, in Queensland there has been no Legislative Council since 1922, and in Tasmania three members of the Council are elected annually (but four in each sixth year) and the Council cannot be dissolved as a whole.

STATE UPPER HOUSE ELECTIONS.

State.	Year of Latest Election.	Electors Enrolled—Whole State.			Contested Electorates.					
					Electors who Voted.			Percentage of Electors who Voted.		
		Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.
Victoria ..	1949	(*a*)	(*a*)	550,472	(*a*)	(*a*)	299,111	(*a*)	(*a*)	77.86
South Australia..	1950	(*a*)	(*a*)	161,917	(*a*)	(*a*)	52,954	(*a*)	(*a*)	78.76
Western Australia	1950	60,156	25,013	85,169	22,237	7,458	29,695	50.30	44.08	48.57

(*a*) Not available.

Particulars of voting at the latest contested elections for the Legislative Council in Tasmania are as follows, 1949 and 1950 respectively :—Number of electors on the roll, 10,063 and 8,695 ; number of votes recorded, 8,279 and 6,975 ; percentage of enrolled voters who voted, 82.27 and 80.22.

(*b*) *Lower Houses.* The following table shows particulars of the voting at the most recent election for the Lower House in each State.

STATE LOWER HOUSE ELECTIONS.

State.	Year of Latest Election.	Electors Enrolled—Whole State.			Contested Electorates.					
					Electors who Voted.			Percentage of Electors who Voted.		
		Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.
N.S. Wales	1950	940,150	979,329	1,919,479	811,027	829,286	1,640,313	93.60	91.70	92.63
Victoria ..	1950	656,800	706,051	1,362,851	596,357	625,377	1,221,734	95.28	93.58	94.40
Q'land ..	1950	*a*365,301	*a*353,384	718,685	323,088	313,662	636,750	92.35	92.68	92.51
S. Australia	1950	(*b*)	(*b*)	437,832	(*b*)	(*b*)	290,306	(*b*)	(*b*)	93.15
W. Aust.	1950	155,903	154,496	310,399	113,441	115,857	229,298	90.93	91.06	90.99
Tasmania	1950	80,228	81,422	161,650	76,517	76,268	152,785	95.37	93.67	94.51

(*a*) Approximate. (*b*) Not available.

(ii) *Elections in Earlier Years.* Official Year Book No. 38 and earlier issues contain particulars of the voting at elections for both Upper and Lower State Houses in years prior to those shown above, and some general information is given in the following paragraphs.

3. **The Parliament of New South Wales.**—The Parliament of New South Wales consists of two Chambers, the Legislative Assembly and the Legislative Council. By legislation assented to in July, 1949, the Assembly was enlarged from 90 to 94 members,

elected in single-seat electoral districts, who hold their seats during the existence of the Parliament to which they are elected. The duration of Parliament is limited to three years and by legislation enacted in 1950 cannot be extended beyond that period except with the approval of electors by referendum. Until 1934 the Council was a nominee Chamber, consisting of a variable number of members appointed for life without remuneration, but as from 23rd April, 1934 it was reconstituted and became a House of 60 members to serve without remuneration for a term of twelve years, with one-quarter of the members retiring every third year. As from 1st September, 1948, however, members of the Council have been paid an allowance of £300 per annum. The electorate comprises members of both Chambers, who vote as a single electoral body at simultaneous sittings of both Chambers.

Any person who is an elector entitled to vote at a Legislative Assembly election, or a person entitled to become such elector, and who has been for at least three years resident in Australia, and who is a natural-born or naturalized subject of the King, is capable of being elected to the Legislative Council. For the Council franchise an elector must be, for the time being, a Member of the Legislative Council or a Member of the Legislative Assembly. Every person qualified to vote at a Legislative Assembly election for any electoral district in New South Wales is qualified to be elected as a Member for that or any other district. Every person not under twenty-one years of age, who is a natural-born or naturalized subject of the King, and who has lived in Australia for at least six months continuously, and in New South Wales for at least three months, and in any subdivision for at least one month immediately preceding the date of claim for enrolment, is entitled to enrolment as an elector for the Legislative Assembly. Persons are disqualified either as members or voters for reasons generally the same as those outlined on page 69.

Since the introduction of responsible government in New South Wales there have been 35 complete Parliaments, the first of which opened on 22nd May, 1856, and was dissolved on 19th December, 1857, while the thirty-fifth was dissolved on 22nd May, 1950. The thirty-sixth Parliament opened on 12th July, 1950.

The elections of 1920, 1922 and 1925 were contested on the principle of proportional representation, but a reversion to the system of single seats and preferential voting was made at the later appeals to the people. The principle of one elector one vote was adopted in 1894, and that of compulsory enrolment in 1921. Compulsory voting was introduced at the 1930 election. The franchise was extended to women (Women's Franchise Act) in 1902, and was exercised by them for the first time in 1904.

4. **The Parliament of Victoria.**—Both of the Victorian legislative Chambers are elective bodies, but there is a considerable difference in the number of members of each House, and until the passing of the Legislative Council Reform Act 1950, in the qualifications necessary for members and electors. The number of members in the Upper House is 34, and in the Lower House, 65. In the Legislative Council the tenure of the seat is for six years, but one member for each of the seventeen provinces retires every third year. Members of the Legislative Assembly are elected for the duration of Parliament, which is limited to three years.

Prior to the passing of the Act just referred to, which operated from November, 1951, there were property qualifications required for membership of, and franchise for, the Legislative Council. As alternatives to the property qualifications for the Council franchise, certain professional and academic qualifications were also allowed. As amended, however, the qualifications for membership of the Council are possessed by any adult natural-born subject of the King, or by any adult alien naturalized for five years and resident in Victoria for two years. Entitlement for enrolment as an elector is extended to every adult natural-born or naturalized subject who has resided in Australia for at least six months continuously and in Victoria for at least three months and in any subdivision for at least one month immediately preceding the date of claim for enrolment. These qualifications for membership and electors apply also in respect of the Legislative Assembly. Reasons for disqualification follow the general pattern for Australia (*see* page 69).

Since the introduction of responsible government in Victoria there have been 37 complete Parliaments, the first of which opened on 21st November, 1856, and closed on 9th August, 1859, while the thirty-seventh was dissolved on 13th April, 1950. The thirty-eighth Parliament was opened on 20th June, 1950.

Single voting is observed in elections held for either House, plurality of voting having been abolished for the Legislative Assembly in 1899 and for the Legislative Council in 1937. A preferential system of voting (*see* Official Year Book No. 6, p. 1182) was adopted for the first time in Victoria at the election held in November, 1911. Compulsory voting was first observed at the 1927 elections for the Legislative Assembly, and at the 1937 elections for the Legislative Council. The franchise was extended to women by the Adult Suffrage Act 1908, while voting at elections was made compulsory for the Legislative Assembly in 1926 and for the Legislative Council in 1935.

5. **The Parliament of Queensland.**—As stated previously, the Legislative Council in Queensland was abolished in 1922, the date of Royal Assent to the Act being 23rd March, 1922. The Legislative Assembly is composed of 75 members, each elected for a period of three years and each representing an electoral district.

Any person qualified to be enrolled for any electoral district is qualified for election to the Legislative Assembly. Any person of the age of twenty-one years, who is a natural-born or naturalized British subject with continuous residence within Australia for six months, in Queensland for three months, and in an electoral district for one month prior to making a claim for enrolment, is qualified to enrol as an elector. The classes of persons not qualified to be elected are similar to those for other Australian Parliaments (*see* page 69), but, in addition to the usual classes of persons disqualified as electors, aboriginal natives of Australia or of certain other countries, and certain half-castes, are also excluded from the franchise.

Under the Electoral Districts Act of 1949 the number of members and the number of electorates were increased from 62 to 75, and the increase became effective from the beginning of the thirty-second Parliament, elected in 1950. The Act divided the State into four zones, as follows :—Zone 1, the " Metropolitan Zone ", divided into 24 electoral districts returning 24 members ; Zone 2, the " South-Eastern Zone ", 28 districts and members ; Zone 3, the " Northern Zone ", thirteen districts and members ; Zone 4, the " Western Zone ", ten districts and members. A commission of three appointed by the Governor-in-Council completely distributed the prescribed zones into the number of electoral districts. District quotas were obtained by dividing the total number of electors living in a zone and enrolled on 31st December, 1948 by the number of electoral districts prescribed for that zone. In distributing the zones the Commissioners considered community or diversity of interest, means of communication, physical features, boundaries of Petty Sessions Districts and of areas of Local Authorities. The Act empowers the Governor-in-Council to appoint three electoral commissioners to carry out any redistribution made necessary by future changes in the number of electors.

Since the establishment of responsible government in Queensland there have been 31 complete Parliaments, the last of which was dissolved on 27th March, 1950. Opinions differ regarding the opening date of the first Queensland Parliament. According to the Votes and Proceedings of the Legislative Assembly, the House met for the first time on 22nd May, 1860, when the members were sworn and the Speaker elected. The Governor, however, was unable to be present on that date, but he duly attended on 29th May, 1860, and delivered the Opening Address. The thirty-second Parliament was opened on 1st August, 1950.

At the elections held in May, 1915, the principle of compulsory voting was introduced for the first time in Australia. The election of 1907 was the first State election in Queensland at which women voted, the right being conferred under the Elections Acts

Amendment Act 1905. In 1942 the system of preferential voting was abolished and that of election of the candidate obtaining the highest number of votes in the electorate now operates.

6. **The Parliament of South Australia.**—In this State there is a Legislative Council composed of twenty members and a House of Assembly with 39 members, both Chambers being elective. For the Legislative Council the State is divided into five districts each returning four members two of whom retire alternately, the term of office being six years. Thirty-nine districts return one member each to the House of Assembly; prior to 1938 there were 46 members representing nineteen districts. The duration of the House of Assembly is three years.

Any person who is at least thirty years of age, is a British subject or legally made a denizen of the State and who has resided in the State for at least three years is qualified for membership in the Legislative Council. Qualifications for the Council franchise are that a person is at least twenty-one years of age, a British subject, an inhabitant of the State with residence for at least six months prior to the registration of the electoral claim, and that he or she has had certain war service, or possesses property qualifications relating to ownership, leaseholding, or inhabitant occupancy. Any person qualified and entitled to be registered as an elector for the House of Assembly is qualified and entitled for election as a member of that House. Qualifications for enrolment as an elector for the House of Assembly are that a person is at least twenty-one years of age, is a British subject, and has lived continuously in Australia for at least six months, in the State for three months and in an Assembly subdivision for one month immediately preceding the date of claim for enrolment. Provisions in the Constitution for disqualification from membership or from the franchise in respect of either House follow the usual pattern for Australia (*see* page 69).

Since the inauguration of responsible government in South Australia there have been 32 complete Parliaments, the first of which was opened on 22nd April, 1857. The thirty-second Parliament was opened on 26th June, 1947, and expired on 28th February, 1950. The thirty-third Parliament was opened on 28th June, 1950. The duration of the twenty-eighth Parliament was extended from three to five years by the provisions of the Constitution (Quinquennial Parliament) Act 1933, but this Act was repealed by the Constitution Act Amendment Act (No. 2) 1939, and the three-year term was reverted to.

South Australia was the first of the States to grant women's suffrage (under the Constitution Amendment Act 1894), the franchise being exercised by women for the first time at the Legislative Assembly election on 25th April, 1896. Compulsory voting for the House of Assembly, provided for by the Electoral Act Amendment Act 1942, was first observed at the 1944 election. A system of preferential voting is in operation.

7. **The Parliament of Western Australia.**—In this State both Chambers are elective. For the Legislative Council there are 30 members, each of the ten provinces returning three members, one of whom retires biennially. At each biennial election the member elected holds office for a term of six years, and automatically retires at the end of that period. The Legislative Assembly is composed of 50 members, one member being returned by each electoral district. Members of the Legislative Assembly are elected for three years.

Since the establishment of responsible government in Western Australia there have been nineteen complete Parliaments, the first of which was opened on 30th December, 1890. The nineteenth Parliament was opened on 31st July, 1947, and expired on 31st January, 1950. The twentieth Parliament was opened on 27th July, 1950. The preferential system of voting in use in Western Australia is described in Official Year Book No. 6, p. 1184.

Qualifications required for membership of the Legislative Council are the age of 30 years, residence in Western Australia for two years, being a natural-born British subject, or naturalized for five years prior to election and resident in the State for that period, and freedom from legal incapacity. Qualifications required for Council franchise are the age of twenty-one years, residence in Western Australia for six months, being a natural-born British subject or naturalized for twelve months, freedom from legal incapacity, and certain property qualifications relating to freehold, leasehold, or householder occupancy. Qualifications required for membership of the Legislative Assembly are the age of twenty-one years, residence in Western Australia for twelve months, being a natural-born British subject, or naturalized for five years and resident in the State for two years prior to election, and freedom from legal incapacity. Qualifications required for the franchise are the age of twenty-one years, residence in Western Australia for six months and in an electoral district continuously for three months, and being a natural-born or naturalized British subject. Persons may be disqualified as members or voters for reasons similar to those for other Australian Parliaments (*see* page 69) but, in addition, certain aboriginal natives of Australia and of other countries, or half-bloods, are excluded from the franchise.

Women's suffrage was granted by the Electoral Act of 1899. The first woman member to be elected to an Australian Parliament was returned at the 1921 election in this State. Voting for the Legislative Assembly was made compulsory in December, 1936, the first elections for which the provision was in force being those held on 18th March, 1939.

8. **The Parliament of Tasmania.**—In Tasmania there are two legislative Chambers—the Legislative Council and the House of Assembly, both bodies being elective. In accordance with the Constitution Act 1946, the Council now consists of nineteen members, elected for six years and returned from nineteen divisions. Three members retire annually (except in the 1953 elections and in each sixth successive year thereafter, when four retire) and the Council cannot be dissolved as a whole. Prior to the 1946 Act there were eighteen members elected from fifteen divisions, of which Hobart returned three members and Launceston two. There are five House of Assembly divisions, corresponding to the Commonwealth electoral divisions, each returning six members elected under a system of proportional representation which first came into force at the 1909 elections (*see* Official Year Book No. 6, p. 1185). The life of the Assembly was extended from three to five years by the Constitution Act 1936.

Persons qualified for election to the Legislative Council must be 25 years of age and qualified to vote as Council electors, have been resident in Tasmania for a period of five years at any one time, or at least two years immediately preceding the election, and be natural-born subjects of the King or naturalized for at least five years. Electors for the Council must be twenty-one years of age, natural-born or naturalized subjects and resident in Tasmania for a period of twelve months, with certain freehold or occupancy property qualifications or with certain academic, professional, defence force, or war service qualifications. For the House of Assembly members must be twenty-one years of age, have been resident in Tasmania for a period of five years at any one time or for a period of two years immediately preceding the election, and be natural-born subjects of the King or naturalized for a period of five years. Electors must be twenty-one years of age, natural-born or naturalized subjects and resident in Tasmania for a period of six months continuously. Reasons for disqualification of members or voters are similar to those for other Australian Parliaments (*see* page 69).

The first Tasmanian Parliament opened on 2nd December, 1856, and closed on 8th May, 1861. There have been 29 complete Parliaments since the inauguration of responsible government. The thirtieth Parliament was opened on 7th June, 1950.

The suffrage was granted to women under the Constitution Amendment Act 1903 and compulsory voting for both Houses came into force on the passing of the Electoral Act in 1928. The system of voting is proportional representation by single transferable vote.

§ 3. Superannuation Funds of the Parliaments of the Commonwealth and of the Australian States.

1. **General.**—In Official Year Book No. 38 there is a conspectus of Superannuation Funds of the Parliaments of the Commonwealth and of the five States (New South Wales, Victoria, Queensland, South Australia and Western Australia) in which such schemes operate (*see* pp. 91–9). This conspectus summarized the main features of each fund as at 30th June, 1949. Although the schemes are still essentially as described in the conspectus, there have subsequently been several changes, and the more important of these up to mid-1951 are referred to below.

New South Wales. Increase of payment to the widow of a member or of a former member entitled to or in receipt of a pension—from £3 per week to £4 per week.

Provision for payment of contributions by a former member while a member of another Australian Parliament, or while holding office of profit under the Crown, in order to be entitled to receive a pension on ceasing to be a member or to hold office. If entitled to a pension under another Parliamentary scheme, contributions are refunded without interest.

Western Australia. Extension of refund of contributions with interest to a person who resigns before, or ceases to be a member on, the expiration of his term, without producing reasons acceptable to the Trustees.

2. **Finances.**—The following tables show the financial operations of each Parliamentary superannuation fund during the years 1948–49 and 1949–50. The former year was the year of commencement for funds other than those of New South Wales and Victoria, which began in 1946.

PARLIAMENTARY SUPERANNUATION FUNDS : FINANCES.

Parliament.	Receipts (£).			Expenditure (£).		Funds at end of Year (£'000).	Contributors at end of Year.	Pensioners at end of Year.
	Contributions.		Total Receipts.	Pension Payments.	Total Expenditure.			
	Members'.	Government.						
			1948–49.					
Commonwealth ..	10,101	..	10,101	..	..	10	111	..
New South Wales ..	6,994	944	8,441	1,390	1,390	21	94	8
Victoria	5,090	..	5,090	(*a*)	3,630	2	(*a*)	(*a*)
Queensland	3,004	3,004	6,008	31	31	6	58	1
South Australia ..	3,132	3,132	6,338	245	316	6	59	2
Western Australia ..	1,912	..	(*b*)6,524	..	600	6	80	..
Total	30,233	7,080	42,502	(*a*)	5,967	51	(*a*)	(*a*)
			1949–50.					
Commonwealth ..	23,495	12,291	36,163	2,576	14,742	32	183	10
New South Wales ..	8,192	301	9,249	1,979	3,183	28	100	17
Victoria	5,168	..	5,168	4,435	4,435	3	99	(*a*)
Queensland	6,375	6,132	12,828	654	1,016	17	71	6
South Australia ..	3,969	6,186	10,514	502	655	16	59	3
Western Australia ..	3,786	..	4,027	4,080	5,462	5	80	7
Total	50,985	24,910	77,949	14,226	29,493	101	592	(*a*)

(*a*) Not available. (*b*) Includes £4,548 transferred from former fund.

§ 4. Administration and Legislation.

1. **The Commonwealth Parliaments.**—The first Parliament of the Commonwealth was convened by proclamation dated 29th April, 1901, by his Excellency the Marquis of Linlithgow, then Earl of Hopetoun, Governor-General. It was opened on 9th May, 1901, by H.R.H. the Duke of Cornwall and York, who had been sent to Australia for that purpose by His Majesty the King. The Rt. Hon. Sir Edmund Barton, G.C.M.G., K.C., was Prime Minister.

The following table shows the number and duration of Parliaments since Federation :—

COMMONWEALTH PARLIAMENTS.

Number of Parliament.	Date of Opening.	Date of Dissolution.
First	9th May, 1901	23rd November, 1903
Second	2nd March, 1904	5th November, 1906
Third	20th February, 1907	19th February, 1910
Fourth	1st July, 1910	23rd April, 1913
Fifth	9th July, 1913	30th July, 1914(a)
Sixth	8th October, 1914	26th March, 1917
Seventh	14th June, 1917	3rd November, 1919
Eighth	26th February, 1920	6th November, 1922
Ninth	28th February, 1923	3rd October, 1925
Tenth	13th January, 1926	9th October, 1928
Eleventh	9th February, 1929	16th September, 1929
Twelfth	20th November, 1929	27th November, 1931
Thirteenth	17th February, 1932	7th August, 1934
Fourteenth	23rd October, 1934	21st September, 1937
Fifteenth	30th November, 1937	27th August, 1940
Sixteenth	20th November, 1940	7th July, 1943
Seventeenth	23rd September, 1943	16th August, 1946
Eighteenth	6th November, 1946	31st October, 1949
Nineteenth	22nd February, 1950	19th March, 1951(a)
Twentieth	12th June, 1951	..

(a) A dissolution of both the Senate and the House of Representatives granted by the Governor-General, acting on the advice of the Ministry, and under Section 57 of the Constitution.

2. **Governors-General and Commonwealth Ministries.**—(i) *Governors-General.* The following statement shows the names of the Governors-General since the inception of the Commonwealth :—

GOVERNORS-GENERAL.

Rt. Hon. EARL OF HOPETOUN (afterwards MARQUIS OF LINLITHGOW), K.T., G.C.M.G., G.C.V.O. From 1st January, 1901 to 9th January, 1903.

Rt. Hon. HALLAM, BARON TENNYSON, G.C.M.G. From 17th July, 1902 to 9th January, 1903 (Acting).

Rt. Hon. HALLAM, BARON TENNYSON, G.C.M.G. From 9th January, 1903 to 21st January, 1904.

Rt. Hon. HENRY STAFFORD, BARON NORTHCOTE, G.C.M.G., G.C.I.E., C.B. From 21st January, 1904 to 9th September, 1908.

Rt. Hon. WILLIAM HUMBLE, EARL OF DUDLEY, G.C.B., G.C.M.G., G.C.V.O. From 9th September, 1908 to 31st July, 1911.

Rt. Hon. THOMAS, BARON DENMAN, G.C.M.G., K.C.V.O. From 31st July, 1911 to 18th May, 1914.

Rt. Hon. SIR RONALD CRAUFURD MUNRO FERGUSON (afterwards VISCOUNT NOVAR OF RAITH), G.C.M.G. From 18th May, 1914 to 6th October, 1920.

Rt. Hon. HENRY WILLIAM, BARON FORSTER OF LEPE, G.C.M.G. From 6th October, 1920 to 8th October, 1925.

Rt. Hon. JOHN LAWRENCE, BARON STONEHAVEN, G.C.M.G., D.S.O. From 8th October, 1925 to 22nd January, 1931.

Lieut.-Colonel the Rt. Hon. ARTHUR HERBERT TENNYSON, BARON SOMERS, K.C.M.G., D.S.O., M.C. From 3rd October, 1930 to 22nd January, 1931 (Acting).

Rt. Hon. SIR ISAAC ALFRED ISAACS, G.C.B., G.C.M.G. From 22nd January, 1931 to 23rd January, 1936.

General the Rt. Hon. ALEXANDER GORE ARKWRIGHT, BARON GOWRIE, V.C., G.C.M.G., C.B., D.S.O. From 23rd January, 1936 to 30th January, 1945.

Major-General Sir WINSTON JOSEPH DUGAN, G.C.M.G., C.B., D.S.O. From 5th September, 1944 to 30th January, 1945 (Acting).

His Royal Highness PRINCE HENRY WILLIAM FREDERICK ALBERT, DUKE OF GLOUCESTER, EARL OF ULSTER AND BARON CULLODEN, K.G., K.T., K.P., P.C., G.M.B., G.C.M.G., G.C.V.O., General in the Army, Air Chief Marshal in the Royal Air Force, One of His Majesty's Personal Aides-de-Camp. From 30th January, 1945 to 11th March, 1947.

Major-General SIR WINSTON JOSEPH DUGAN, G.C.M.G., C.B., D.S.O. From 18th January, 1947 to 11th March, 1947 (Acting).

Rt. Hon. SIR WILLIAM JOHN MCKELL, G.C.M.G. From 11th March, 1947.

(ii) *Commonwealth Ministries.* (*a*) *Names and Tenure of Office*, 1901 *to* 1951. The following list shows the name of each Commonwealth Ministry to hold office since 1st January, 1901, and the limits of its term of office.

COMMONWEALTH MINISTRIES.

(i) BARTON MINISTRY, 1st January, 1901 to 24th September, 1903.
(ii) DEAKIN MINISTRY, 24th September, 1903 to 27th April, 1904.
(iii) WATSON MINISTRY, 27th April, 1904 to 17th August, 1904.
(iv) REID-MCLEAN MINISTRY, 18th August, 1904 to 5th July, 1905.
(v) DEAKIN MINISTRY, 5th July, 1905 to 13th November, 1908.
(vi) FISHER MINISTRY, 13th November, 1908 to 1st June, 1909.
(vii) DEAKIN MINISTRY, 2nd June, 1909 to 29th April, 1910.
(viii) FISHER MINISTRY, 29th April, 1910 to 24th June, 1913.
(ix) COOK MINISTRY, 24th June, 1913 to 17th September, 1914.
(x) FISHER MINISTRY, 17th September, 1914 to 27th October, 1915.
(xi) HUGHES MINISTRY, 27th October, 1915 to 14th November, 1916.
(xii) HUGHES MINISTRY, 14th November, 1916 to 17th February, 1917.
(xiii) HUGHES MINISTRY, 17th February, 1917 to 10th January, 1918.
(xiv) HUGHES MINISTRY, 10th January, 1918 to 9th February, 1923.
(xv) BRUCE-PAGE MINISTRY, 9th February, 1923 to 22nd October, 1929.
(xvi) SCULLIN MINISTRY, 22nd October, 1929 to 6th January, 1932.
(xvii) LYONS MINISTRY, 6th January, 1932 to 7th November, 1938.
(xviii) LYONS MINISTRY, 7th November, 1938 to 7th April, 1939.
(xix) PAGE MINISTRY, 7th April, 1939 to 26th April, 1939.
(xx) MENZIES MINISTRY, 26th April, 1939 to 14th March, 1940.
(xxi) MENZIES MINISTRY, 14th March, 1940 to 28th October, 1940.
(xxii) MENZIES MINISTRY, 28th October, 1940 to 29th August, 1941.
(xxiii) FADDEN MINISTRY, 29th August, 1941 to 7th October, 1941.
(xxiv) CURTIN MINISTRY, 7th October, 1941 to 21st September, 1943.
(xxv) CURTIN MINISTRY, 21st September, 1943 to 6th July, 1945.
(xxvi) FORDE MINISTRY, 6th July, 1945 to 13th July, 1945.
(xxvii) CHIFLEY MINISTRY, 13th July, 1945 to 1st November, 1946.
(xxviii) CHIFLEY MINISTRY, 1st November, 1946 to 19th December, 1949.
(xxix) MENZIES MINISTRY, 19th December, 1949 to 11th May, 1951.
(xxx) MENZIES MINISTRY, 11th May, 1951.

(*b*) *Names of Successive Holders of Office, 9th February*, 1923 *to* 31*st July*, 1951. In earlier issues of the Official Year Book (*see* No. 21, 1928 and previous issues) there appeared the names of each Ministry up to the Bruce-Page Ministry (9th February, 1923 to 22nd October, 1929), together with the names of the successive holders of portfolios therein, but in subsequent issues the names of the Ministers at one point of time only have been given, and continuity in the names of the holders of office has not been maintained. The following list, commencing with the Bruce-Page Ministry, covers the period between the date on which it assumed power, 9th February, 1923, and 31st July, 1951, and shows the names of all persons who have held office in each Ministry during that period.

MINISTRIES.

BRUCE-PAGE MINISTRY—9th February, 1923 to 22nd October, 1929.

Departments.	*Ministers.*
Prime Minister and Minister for External Affairs	Rt. HON. STANLEY MELBOURNE BRUCE, M.C.*
Treasurer	Hon. EARLE CHRISTMAS GRAFTON PAGE.†
Minister for Home and Territories (*a*)	Senator the Rt. Hon. GEORGE FOSTER PEARCE,‡ (to 18.6.26). Senator the Hon. SIR THOMAS WILLIAM GLASGOW, K.C.B., C.M.G., D.S.O., V.D. (from 18.6.26 to 2.4.27). Hon. CHARLES WILLIAM CLANAN MARR, D.S.O., M.C., V.D.§ (from 2.4.27 to 24.2.28). Hon. SIR NEVILLE REGINALD HOWSE, V.C., K.C.B., K.C.M.G. (from 24.2.28 to 29.11.28). Hon. CHARLES LYDIARD AUBREY ABBOTT (from 29.11.28).

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* C.H., 1927; created Viscount Bruce of Melbourne, 1947. † P.C., 1929; G.C.M.G., 1938; C.H., 1942. ‡ K.C.V.O., 1927. § K.C.V.O., 1934.

(*a*) Title of Portfolio altered to "Home Affairs", 10th December, 1928.

MINISTRIES—*continued.*

BRUCE-PAGE MINISTRY—9th February, 1923 to 22nd October, 1929—*continued.*

Departments.	*Ministers.*
Attorney-General	Hon. LITTLETON ERNEST GROOM* (to 18.12.25). Hon. JOHN GREIG LATHAM, C.M.G., K.C.† (from 18.12.25).
Minister for Industry(*a*)	Hon. JOHN GREIG LATHAM, C.M.G., K.C.† (from 10.12.28).
Postmaster-General	Hon. WILLIAM GERRAND GIBSON.‡
Minister for Trade and Customs	Hon. AUSTIN CHAPMAN§ (to 26.5.24). Hon. SIR LITTLETON ERNEST GROOM, K.C.M.G., K.C. (from 29.5.24 to 13.6.24). Hon. HERBERT EDWARD PRATTEN (from 13.6.24 to 7.5.28). Rt. Hon. STANLEY MELBOURNE BRUCE, C.H., M.C.** (from 8.5.28 to 24.11.28). Hon. HENRY SOMER GULLETT‖ (from 24.11.28).
Minister for Works and Railways	Hon. PERCY GERALD STEWART (to 5.8.24). Hon. WILLIAM CALDWELL HILL (from 8.8.24 to 29.11.28). Hon. WILLIAM GERRAND GIBSON‡ (from 10.12.28).
Minister for Defence	Hon. ERIC KENDALL BOWDEN (to 16.1.25). Hon. SIR NEVILLE REGINALD HOWSE, V.C., K.C.B., K.C.M.G. (from 16.1.25 to 2.4.27). Senator the Hon. SIR THOMAS WILLIAM GLASGOW, K.C.B., C.M.G., D.S.O., V.D. (from 2.4.27).
Minister for Health	Hon. AUSTIN CHAPMAN§ (to 26.5.24). Hon. SIR LITTLETON ERNEST GROOM, K.C.M.G., K.C. (from 29.5.24 to 13.6.24). Hon. HERBERT EDWARD PRATTEN (from 13.6.24 to 16.1.25). Hon. SIR NEVILLE REGINALD HOWSE, V.C., K.C.B., K.C.M.G. (from 16.1.25 to 2.4.27 and from 24.2.28). Rt. Hon. STANLEY MELBOURNE BRUCE, C.H., M.C.** (from 2.4.27 to 24.2.28).
Minister for Markets and Migration (*b*)	Senator the Hon. REGINALD VICTOR WILSON¶ (to 18.6.26). Hon. THOMAS PATERSON (from 18.6.26).
Vice-President of Executive Council	Hon. LLEWELYN ATKINSON (to 18.6.26). Senator the Rt. Hon. GEORGE FOSTER PEARCE†† (from 18.6.26).
Honorary Ministers	Senator the Hon. REGINALD VICTOR WILSON¶ (to 16.1.25). Hon. CHARLES WILLIAM CLANAN MARR, D.S.O., M.C., V.D.‡‡ (from 16.1.25 to 2.4.27 and from 24.2.28). Hon. SIR NEVILLE REGINALD HOWSE, V.C., K.C.B., K.C.M.G. (from 2.4.27 to 24.2.28). Senator the Hon. THOMAS WILLIAM CRAWFORD (from 14.2.23 to 29.11.28). Senator the Hon. ALEXANDER JOHN MCLACHLAN (from 29.8.26). Senator the Hon. JAMES ERNEST OGDEN (from 29.11.28).

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* K.C., 1923; K.C.M.G., 1924. † P.C., 1933; G.C.M.G., 1935. ‡ Senator, 1934–47. § K.C.M.G., 1924. ‖ K.C.M.G., 1933. ¶ K.B.E., 1926. ** C.H., 1927; created Viscount Bruce of Melbourne, 1947. †† K.C.V.O., 1927. ‡‡ K.C.V.O., 1934.

(*a*) Department created 10th December, 1928. (*b*) Title of Portfolio altered to "Markets", 19th January, 1928, and again to "Markets and Transport", 10th December, 1928.

SCULLIN MINISTRY—22nd October, 1929 to 6th January, 1932.

Departments.	*Ministers.*
Prime Minister, Minister for External Affairs and Minister for Industry	Hon. JAMES HENRY SCULLIN.*
Treasurer	Hon. EDWARD GRANVILLE THEODORE (to 9.7.30 and from 29.1.31). Rt. Hon. JAMES HENRY SCULLIN (from 9.7.30 to 29.1.31).
Vice-President of Executive Council	Senator the Hon. JOHN JOSEPH DALY (to 3.3.31). Senator the Hon. JOHN BARNES (from 3.3.31).
Attorney-General	Hon. FRANK BRENNAN.
Postmaster-General and Minister for Works and Railways	Hon. JOSEPH ALOYSIUS LYONS† (to 4.2.31). Hon. ALBERT ERNEST GREEN (from 4.2.31).
Minister for Trade and Customs	Hon. JAMES EDWARD FENTON‡ (to 4.2.31). Hon. FRANCIS MICHAEL FORDE§ (from 4.2.31).
Minister for Home Affairs	Hon. ARTHUR BLAKELY.
Minister for Health and Minister for Repatriation	Hon. FRANK ANSTEY (to 3.3.31). Hon. JOHN MCNEILL (from 3.3.31).
Minister for Defence	Hon. ALBERT ERNEST GREEN (to 4.2.31). Senator the Hon. JOHN JOSEPH DALY (from 4.2.31 to 3.3.31). Hon. JOSEPH BENEDICT CHIFLEY‖ (from 3.3.31).
Minister for Markets and Transport(*a*)	Hon. PARKER JOHN MOLONEY.
Honorary Ministers	Senator the Hon. JOHN BARNES (to 4.2.31). Hon. FRANCIS MICHAEL FORDE§ (to 4.2.31). Hon. JOHN ALBERT BEASLEY¶ (to 3.3.31). Hon. EDWARD JAMES HOLLOWAY** (from 3.3.31 to 12.6.31). Hon. CHARLES ERNEST CULLEY (from 3.3.31 to 24.6.31). Senator the Hon. JOHN BRAIDWOOD DOOLEY (from 3.3.31). Senator the Hon. JOHN JOSEPH DALY (from 26.6.31). Hon. LUCIEN LAWRENCE CUNNINGHAM (from 26.6.31).

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* P.C., 1930. † P.C., 1932; C.H., 1936. ‡ C.M.G., 1938. § P.C., 1944. ‖ P.C., 1945. ¶ P.C., 1946. ** P.C., 1950.

(*a*) Created two separate Departments, "Markets" and "Transport", 21st April, 1930, Mr. Moloney holding both portfolios.

MINISTRIES—*continued.*

Lyons Ministry—6th January, 1932 to 7th November, 1938.

Departments.	*Ministers.*
Prime Minister	Rt. Hon. Joseph Aloysius Lyons.*
Treasurer	Rt. Hon. Joseph Aloysius Lyons* (to 3.10.35). Hon. Richard Gardiner Casey, D.S.O., M.C.† (from 3.10.35).
Attorney-General and Minister for Industry	Hon. John Greig Latham, C.M.G., K.C.‡ (to 12.10.34). Hon. Robert Gordon Menzies, K.C.§ (from 12.10.34).
Minister for External Affairs	Hon. John Greig Latham, C.M.G., K.C.‡ (to 12.10.34). Senator the Rt. Hon. Sir George Foster Pearce, K.C.V.O. (from 12.10.34 to 29.11.37). Rt. Hon. William Morris Hughes, K.C.‖ (from 29.11.37).
Minister for Defence	Senator the Rt. Hon. Sir George Foster Pearce, K.C.V.O. (to 12.10.34). Hon. Robert Archdale Parkhill¶ (from 12.10.34 to 20.11.37). Rt. Hon. Joseph Aloysius Lyons, C.H. (from 20.11.37 to 29.11.37). Hon. Harold Victor Campbell Thorby (from 29.11.37).
Postmaster-General	Hon. James Edward Fenton** (to 13.10.32). Hon. Robert Archdale Parkhill¶ (from 13.10.32 to 12.10.34). Senator the Hon. Alexander John McLachlan (from 12.10.34).
Minister for Trade and Customs	Hon. Henry Somer Gullett†† (to 14.1.33). Hon. Thomas Walter White, D.F.C., V.D. (from 14.1.33).
Minister for Home Affairs and Minister for Transport(*a*)	Hon. Robert Archdale Parkhill¶ (to 12.4.32).
Minister for Works and Railways(*a*)	Hon. Charles William Clanan Marr, D.S.O., M.C., V.D.‡‡ (to 12.4.32).
Minister for the Interior(*a*)	Hon. Robert Archdale Parkhill¶ (from 12.4.32 to 13.10.32). Hon. John Arthur Perkins (from 13.10.32 to 12.10.34). Hon. Eric John Harrison (from 12.10.34 to 9.11.34). Hon. Thomas Paterson (from 9.11.34 to 29.11.37). Hon. John McEwen (from 29.11.37).
Minister for Commerce(*b*)	Hon. Charles Allan Seymour Hawker (to 23.9.32). Rt. Hon. Joseph Aloysius Lyons* (from 3.10.32 to 13.10.32). Hon. Frederick Harold Stewart§§ (from 13.10.32 to 9.11.34). Rt. Hon. Earle Christmas Grafton Page¶¶ (from 9.11.34).
Minister for Health	Hon. Charles William Clanan Marr, D.S.O., M.C., V.D.‡‡ (to 12.10.34). Rt. Hon. William Morris Hughes, K.C.‖ (from 12.10.34 to 6.11.35 and from 26.2.36 to 29.11.37). Rt. Hon. Joseph Aloysius Lyons* (from 8.11.35 to 26.2.36). Rt. Hon. Earle Christmas Grafton Page¶¶ (from 29.11.37).
Minister for Repatriation	Hon. Charles Allan Seymour Hawker (to 13.4.32). Hon. Charles William Clanan Marr, D.S.O., M.C., V.D.‡‡ (from 13.4.32 to 12.10.34). Rt. Hon. William Morris Hughes, K.C.‖ (from 12.10.34 to 6.11.35 and 6.2.36 to 29.11.37). Rt. Hon. Joseph Aloysius Lyons* (from 8.11.35 to 6.2.36). Senator the Hon. Hattil Spencer Foll (from 29.11.37).
Vice-President of the Executive Council	Senator the Hon. Alexander John McLachlan (to 12.10.34). Rt. Hon. William Morris Hughes, K.C.‖ (from 12.10.34 to 6.11.35 and from 29.11.37). Rt. Hon. Joseph Aloysius Lyons* (from 8.11.35 to 29.11.37).
Assistant Treasurer	Rt. Hon. Stanley Melbourne Bruce, C.H., M.C.‖‖ (to 23.6.32). Senator the Hon. Walter Massy-Greene†† (to 11.10.33). Hon. Richard Gardiner Casey, D.S.O., M.C.† (from 25.9.33 to 3.10.35). Senator the Hon. Sir Harry Sutherland Wightman Lawson, K.C.M.G. (17.10.33 to 12.10.34).
Assistant Minister for Defence	Hon. Josiah Francis (to 12.10.34).
Assistant Minister for Trade and Customs	Hon. John Arthur Perkins (to 13.10.32). Hon. James Allan Guy (from 13.10.32 to 12.10.34).
Minister in charge of Territories	Hon. Charles William Clanan Marr, D.S.O., M.C., V.D.‡‡ (to 24.5.34). Senator the Hon. Sir Harry Sutherland Wightman Lawson, K.C.M.G. (from 24.5.34 to 12.10.34). Senator the Rt. Hon. Sir George Foster Pearce, K.C.V.O. (from 12.10.34 to 29.11.37) Rt. Hon. William Morris Hughes, K.C.‖ (from 29.11.37).
Minister in charge of Development and Scientific and Industrial Research	Senator the Hon. Alexander John McLachlan (to 29.11.37). Hon. Richard Gardiner Casey, D.S.O., M.C.† (from 29.11.37).
Minister in charge of War Service Homes	Hon. Josiah Francis (to 9.11.34). Hon. Harold Victor Campbell Thorby (from 9.11.34 to 11.9.36). Hon. James Aitchison Johnston Hunter (from 11.9.36 to 29.11.37). Senator the Hon. Hattil Spencer Foll (from 29.11.37).

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* C.H., 1936. † P.C., 1939; C.H., 1944. ‡ P.C., 1933; G.C.M.G., 1935. § P.C., 1937; C.H., 1951. ‖ C.H., 1941. ¶ K.C.M.G., 1936. ** C.M.G., 1938. †† K.C.M.G., 1933. ‡‡ K.C.V.O., 1934. §§ Kt., 1935. ‖‖ Created Viscount Bruce of Melbourne, 1947. ¶¶ G.C.M.G., 1938; C.H., 1942.

(*a*) "Home Affairs", "Transport" and "Works and Railways" amalgamated on 12th April, 1932 under the name of "Interior". (*b*) Title of portfolio altered from "Markets", 13th April, 1932.

MINISTRIES—*continued.*

LYONS MINISTRY—6th January, 1932 to 7th November, 1938—*continued.*

Departments.	*Ministers.*
Ministers without Portfolio	Rt. Hon. STANLEY MELBOURNE BRUCE, C.H., M.C.*(*a*) (from 23.6.32 to 6.10.33). Hon. SIR HENRY SOMER GULLETT, K.C.M.G. (from 12.10.34 to 11.3.37). Hon. SIR CHARLES WILLIAM CLANAN MARR, K.C.V.O., D.S.O., M.C., V.D.(*b*) (from 12.10.34 to 31.12.34). Senator the Hon. THOMAS CORNELIUS BRENNAN, LL.D., K.C. (from 12.10.34 to 29.11.37). Hon. HAROLD VICTOR CAMPBELL THORBY (from 11.9.36 to 29.11.37). Hon. JAMES AITCHISON JOHNSTON HUNTER (from 9.11.34 to 29.11.37). Hon. JOHN ARTHUR PERKINS (from 29.11.37). Senator the Hon. ALLAN NICOLL MACDONALD (from 29.11.37). Hon. VICTOR CHARLES THOMPSON (from 29.11.37). Hon. ARCHIE GALBRAITH CAMERON (from 29.11.37).

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* Created Viscount Bruce of Melbourne, 1947.

(*a*) Minister without portfolio, London, from 26.9.32 to 6.10.33. (*b*) Honorary Minister in charge of the Royal Visit, 9.11.34 to 31.12.34.

LYONS MINISTRY—7th November, 1938 to 7th April, 1939.

Departments.	*Ministers.*
Prime Minister	Rt. Hon. JOSEPH ALOYSIUS LYONS, C.H.*
Attorney-General and Minister for Industry	Rt. Hon. ROBERT GORDON MENZIES, K.C.† (to 20.3.39). Rt. Hon. WILLIAM MORRIS HUGHES, K.C.‡ (from 20.3.39).
Minister for External Affairs	Rt. Hon. WILLIAM MORRIS HUGHES, K.C.‡
Treasurer	Hon. RICHARD GARDINER CASEY, D.S.O., M.C.§
Minister for Commerce	Rt. Hon. SIR EARLE CHRISTMAS GRAFTON PAGE, G.C.M.G.‖
Minister for Trade and Customs	Hon. THOMAS WALTER WHITE, D.F.C., M.C. (to 8.11.38). Hon. JOHN ARTHUR PERKINS (from 8.11.38.)
Minister for Defence	Hon. GEOFFREY AUSTIN STREET, M.C.
Minister for the Interior	Hon. JOHN MCEWEN.
Minister for Works and Minister for Civil Aviation(*a*)	Hon. HAROLD VICTOR CAMPBELL THORBY (from 24.11.38).
Vice-President of the Executive Council	Senator the Hon. GEORGE MCLEAY.
Postmaster-General	Hon. ARCHIE GALBRAITH CAMERON.
Minister for Repatriation and Minister for Health	Senator the Hon. HATTIL SPENCER FOLL.
Ministers without portfolio	Hon. JOHN ARTHUR PERKINS (to 8.11.38). Hon. ERIC JOHN HARRISON (from 8.11.38). Hon. VICTOR CHARLES THOMPSON.

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* Died in office, 7th April, 1939. † C.H., 1951. ‡ C.H., 1941. § P.C., 1939; C.H., 1944. ‖ C.H., 1942.

(*a*) Department of Works and Department of Civil Aviation were created on 24th November, 1938.

PAGE MINISTRY—7th April, 1939 to 26th April 1939.

Departments.	*Ministers.*
Prime Minister and Minister for Commerce	Rt. Hon. SIR EARLE CHRISTMAS GRAFTON PAGE, G.C.M.G.*
Attorney-General, Minister for Industry and Minister for External Affairs	Rt. Hon. WILLIAM MORRIS HUGHES, K.C.†
Treasurer	Rt. Hon. RICHARD GARDINER CASEY, D.S.O., M.C.‡
Minister for Works and Minister for Civil Aviation	Hon. HAROLD VICTOR CAMPBELL THORBY.
Minister for Trade and Customs	Hon. JOHN ARTHUR PERKINS.
Minister for Defence	Hon. GEOFFREY AUSTIN STREET, M.C.
Minister for the Interior	Hon. JOHN MCEWEN.
Vice-President of the Executive Council	Senator the Hon. GEORGE MCLEAY.
Minister for Health and Minister for Repatriation	Senator the Hon. HATTIL SPENCER FOLL.
Postmaster-General	Hon. ARCHIE GALBRAITH CAMERON.
Ministers without portfolio	Senator the Hon. ALLAN NICOLL MACDONALD. Hon. VICTOR CHARLES THOMPSON. Hon. ERIC JOHN HARRISON.

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* C.H., 1942. † C.H., 1941. ‡ C.H., 1944.

MINISTRIES—*continued.*

MENZIES MINISTRY—26th April, 1939 to 14th March, 1940.

Departments.	*Ministers.*
Prime Minister and Treasurer ..	Rt. Hon. Robert Gordon Menzies, K.C.*
Acting Treasurer	Hon. Percy Claude Spender, K.C. (from 3.11.39).
Attorney-General and Minister for Industry	Rt. Hon. William Morris Hughes, K.C.†
Minister for External Affairs ..	Hon. Sir Henry Somer Gullett, K.C.M.G.
Minister for Commerce ..	Senator the Hon. George McLeay.
Minister for Supply and Development	Rt. Hon. Richard Gardiner Casey, D.S.O., M.C.‡ (to 26.1.40). Hon. Sir Frederick Harold Stewart (from 26.1.40).
Minister for the Interior ..	Senator the Hon. Hattil Spencer Foll.
Postmaster-General and Minister for Repatriation	Hon. Eric John Harrison.
Minister for Trade and Customs..	Hon. John Norman Lawson (to 23.2.40). Rt. Hon. Robert Gordon Menzies, K.C.* (from 23.2.40).
Minister for Health and Minister for Social Services	Hon. Sir Frederick Harold Stewart.
Vice-President of the Executive Council	Hon. James Valentine Fairbairn (to 26.1.40). Hon. Percy Claude Spender, K.C. (from 26.1.40).
Minister for Information(*a*) ..	Hon. Sir Henry Somer Gullett, K.C.M.G. (from 12.9.39).
Minister for Defence(*b*).. ..	Hon. Geoffrey Austin Street, M.C. (to 13.11.39).
Minister for Defence Co-ordination (*b*)	Rt. Hon. Robert Gordon Menzies, K.C.* (from 13.11.39).
Minister for the Army(*b*) ..	Hon. Geoffrey Austin Street, M.C. (from 13.11.39).
Minister for the Navy(*b*) ..	Hon. Sir Frederick Harold Stewart (from 13.11.39).
Minister for Air(*b*)	Hon. James Valentine Fairbairn (from 13.11.39).
Minister for Civil Aviation ..	Hon. James Valentine Fairbairn.
Ministers without portfolio ..	Hon. John Arthur Perkins. Hon. Percy Claude Spender, K.C. (to 3.11.39). Senator the Hon. Philip Albert Martin McBride. Senator the Hon. Herbert Brayley Collett, C.M.G., D.S.O., V.D. Hon. Harold Edward Holt.

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* C.H., 1951. † C.H., 1941. ‡ C.H., 1944.

(*a*) Department created 12th September, 1939. (*b*) On 14th November, 1939, four departments were created in lieu of the existing Department of Defence—Defence Co-ordination, Army, Navy and Air.

MENZIES MINISTRY—14th March, 1940 to 28th October, 1940.

Departments.	*Ministers.*
Prime Minister, Minister for Defence Co-ordination, and Minister for Information	Rt. Hon. Robert Gordon Menzies, K.C.*
Treasurer	Hon. Percy Claude Spender, K.C.
Minister for External Affairs ..	Hon. John McEwen.
Attorney-General and Minister for Industry	Rt. Hon. William Morris Hughes, K.C.†
Minister for Commerce and Minister for the Navy	Hon. Archie Galbraith Cameron.
Minister for the Interior ..	Senator the Hon. Hattil Spencer Foll.
Minister for Supply and Development and Minister for Social Services	Hon. Sir Frederick Harold Stewart.
Postmaster-General and Minister for Health	Hon. Harold Victor Campbell Thorby.
Minister for Trade and Customs..	Senator the Hon. George McLeay.
Vice-President of the Executive Council and Minister in charge of Scientific and Industrial Research	Hon. Sir Henry Somer Gullett, K.C.M.G.‡ (to 13.8.40). Senator the Hon. Herbert Brayley Collett, C.M.G., D.S.O., V.D. (from 14.8.40).
Minister for the Army and Minister for Repatriation	Hon. Geoffrey Austin Street, M.C.‡ (to 13.8.40). Senator the Hon. Philip Albert Martin McBride (from 14.8.40)
Minister for Munitions(*a*) ..	Rt. Hon. Robert Gordon Menzies, K.C.* (from 11.6.40.)
Minister for Air and Minister for Civil Aviation	Hon. James Valentine Fairbairn‡ (to 13.8.40). Hon. Arthur William Fadden§ (from 14.8.40).
Ministers Assisting (excluding Ministers with portfolio)	Senator the Hon. Philip Albert Martin McBride. Senator the Hon. Herbert Brayley Collett, C.M.G., D.S.O., V.D. Hon. Arthur William Fadden.§
Ministers without portfolio ..	Senator the Hon. Philip Albert Martin McBride (to 13.8.40). Senator the Hon. Herbert Brayley Collett, C.M.G., D.S.O., V.D. (to 13.8.40). Hon. Arthur William Fadden§ (to 13.8.40). Hon. Horace Keyworth Nock.

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* C.H., 1951. † C.H., 1941. ‡ Died in office, 13th August, 1940. § P.C., 1942; K.C.M.G., 1951.

(*a*) Department of Munitions created on 11th June, 1940.

MINISTRIES—*continued*.

MENZIES MINISTRY—28th October, 1940 to 29th August, 1941.

Departments.	*Ministers.*
Prime Minister and Minister for Defence Co-ordination	Rt. Hon. ROBERT GORDON MENZIES, K.C.*
Treasurer	Hon. ARTHUR WILLIAM FADDEN.†
Attorney-General and Minister for the Navy	Rt. Hon. WILLIAM MORRIS HUGHES, K.C.‡
Minister for the Army	Hon. PERCY CLAUDE SPENDER, K.C.
Postmaster-General	Senator the Hon. GEORGE McLEAY (to 26.6.41). Hon. THOMAS JOSEPH COLLINS (from 26.6.41).
Minister for Repatriation ..	Senator the Hon. GEORGE McLEAY (to 26.6.41). Senator the Hon. HERBERT BRAYLEY COLLETT, C.M.G., D.S.O., V.D. (from 26.6.41).
Vice-President of the Executive Council	Senator the Hon. GEORGE McLEAY.
Minister for Air and Minister for Civil Aviation	Hon. JOHN McEWEN.
Minister for the Interior ..	Senator the Hon. HATTIL SPENCER FOLL.
Minister for Information ..	Rt. Hon. ROBERT GORDON MENZIES, K.C.* (to 13.12.40). Senator the Hon. HATTIL SPENCER FOLL (from 13.12.40).
Minister for Commerce	Rt. Hon. SIR EARLE CHRISTMAS GRAFTON PAGE, G.C.M.G.§
Minister for External Affairs, Minister for Social Services and Minister for Health	Hon. SIR FREDERICK HAROLD STEWART.
Minister for Supply and Development	Senator the Hon. PHILIP ALBERT MARTIN McBRIDE (to 26.6.41). Senator the Hon. GEORGE McLEAY (from 26.6.41).
Minister for Munitions ..	Senator the Hon. PHILIP ALBERT MARTIN McBRIDE.
Minister for Trade and Customs ..	Hon. ERIC JOHN HARRISON.
Minister for Labour and National Service and Minister in charge of Scientific and Industrial Research	Hon. HAROLD EDWARD HOLT.
Minister for Aircraft Production(*a*)	Senator the Hon. JOHN WILLIAM LECKIE (from 26.6.41).
Minister for Transport(*a*) ..	Hon. HUBERT LAWRENCE ANTHONY (from 26.6.41).
Minister for War Organization of Industry(*a*)	Hon. ERIC SYDNEY SPOONER (from 26.6.41).
Minister for Home Security(*a*) ..	Hon. JOSEPH PALMER ABBOTT, M.C. (from 26.6.41).
Minister for External Territories(*a*)	Hon. ALLEN McKENZIE McDONALD (from 26.6.41).
Ministers without portfolio ..	Senator the Hon. HERBERT BRAYLEY COLLETT, C.M.G., D.S.O., V.D. (to 26.6.41). Hon. THOMAS JOSEPH COLLINS (to 26.6.41). Senator the Hon. JOHN WILLIAM LECKIE (to 26.6.41). Hon. HUBERT LAWRENCE ANTHONY (to 26.6.41).

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* C.H., 1951. † P.C., 1942; K.C.M.G., 1951. ‡ C.H., 1941. § C.H., 1942.
(*a*) Department created on 26th June, 1941.

FADDEN MINISTRY—29th August, 1941 to 7th October, 1941.

Departments.	*Ministers.*
Prime Minister and Treasurer ..	Hon. ARTHUR WILLIAM FADDEN*.
Minister for Defence Co-ordination	Rt. Hon. ROBERT GORDON MENZIES, K.C.†
Attorney-General and Minister for the Navy	Rt. Hon. WILLIAM MORRIS HUGHES, C.H., K.C.
Minister for the Army	Hon. PERCY CLAUDE SPENDER, K.C.
Minister for Supply and Development and Vice-President of the Executive Council	Senator the Hon. GEORGE McLEAY.
Minister for Air and Minister for Civil Aviation	Hon. JOHN McEWEN.
Minister for the Interior and Minister for Information	Senator the Hon. HATTIL SPENCER FOLL.
Minister for Commerce ..	Rt. Hon. SIR EARLE CHRISTMAS GRAFTON PAGE, G.C.M.G.‡
Minister for External Affairs, Minister for Health and Minister for Social Services	Hon. SIR FREDERICK HAROLD STEWART.
Minister for Munitions ..	Senator the Hon. PHILIP ALBERT MARTIN McBRIDE.
Minister for Trade and Customs ..	Hon. ERIC JOHN HARRISON.
Minister for Labour and National Service	Hon. HAROLD EDWARD HOLT.
Minister for Repatriation ..	Senator the Hon. HERBERT BRAYLEY COLLETT, C.M.G., D.S.O., V.D.
Postmaster-General	Hon. THOMAS JOSEPH COLLINS.
Minister for Aircraft Production ..	Senator the Hon. JOHN WILLIAM LECKIE.
Minister for Transport ..	Hon. HUBERT LAWRENCE ANTHONY.
Minister for War Organization of Industry	Hon. ERIC SYDNEY SPOONER.
Minister for Home Security ..	Hon. JOSEPH PALMER ABBOTT, M.C.
Minister for External Territories	Hon. ALLAN McKENZIE McDONALD.

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* P.C., 1942; K.C.M.G., 1951. † C.H., 1951. ‡ C.H., 1942.

MINISTRIES—*continued.*

CURTIN MINISTRY—7th October, 1941 to 21st September, 1943.

Departments.	*Ministers.*
Prime Minister and Minister for Defence Co-ordination(*a*)	Hon. JOHN CURTIN.*
Treasurer	Hon. JOSEPH BENEDICT CHIFLEY.†
Attorney-General and Minister for External Affairs.	Hon. HERBERT VERE EVATT, LL.D., K.C.‡
Minister for the Army	Hon. FRANCIS MICHAEL FORDE.§
Minister for Post-war Reconstruction(*b*)	Hon. JOSEPH BENEDICT CHIFLEY.†
Minister for Supply and Development(*c*)	Hon. JOHN ALBERT BEASLEY.‖
Minister for the Interior ..	Senator the Hon. JOSEPH SILVER COLLINGS.
Minister for the Navy and Minister for Munitions	Hon. NORMAN JOHN OSWALD MAKIN.
Minister for Social Services and Minister for Health	Hon. EDWARD JAMES HOLLOWAY.¶
Minister for Trade and Customs and Vice-President of the Executive Council	Senator the Hon. RICHARD VALENTINE KEANE.
Minister for Air and Minister for Civil Aviation	Hon. ARTHUR SAMUEL DRAKEFORD.
Minister for Commerce(*d*) ..	Hon. WILLIAM JAMES SCULLY.
Postmaster-General and Minister for Information	Senator the Hon. WILLIAM PATRICK ASHLEY.
Minister for Labour and National Service	Hon. EDWARD JOHN WARD.
Minister for Repatriation and Minister in charge of War Service Homes	Hon. CHARLES WILLIAM FROST.
Minister for War Organization of Industry and Minister in charge of the Council for Scientific and Industrial Research	Hon. JOHN JOHNSTONE DEDMAN.
Minister for Home Security ..	Hon. HUBERT PETER LAZZARINI.
Minister for External Territories	Senator the Hon. JAMES MACKINTOSH FRASER.
Minister for Aircraft Production ..	Senator the Hon. DONALD CAMERON.
Minister for Transport ..	Hon. GEORGE LAWSON.

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* P.C., 1942. † P.C., 1945. ‡ P.C., 1942. § P.C., 1944. ‖ P.C., 1946. ¶ P.C., 1950.

(*a*) Title changed to Minister for Defence, 14th April, 1942. (*b*) Department created 22nd December, 1942. (*c*) Title of portfolio changed to Minister for Supply and Shipping, 17th October, 1942. (*d*) Title changed to Minister for Commerce and Agriculture, 22nd December, 1942.

CURTIN MINISTRY—21st September, 1943 to 6th July, 1945.

Departments.	*Ministers.*
Prime Minister and Minister for Defence	Rt. Hon. JOHN CURTIN.*
Treasurer	Hon. JOSEPH BENEDICT CHIFLEY.†
Attorney-General and Minister for External Affairs	Rt. Hon. HERBERT VERE EVATT, LL.D., K.C.
Minister for the Army ..	Hon. FRANCIS MICHAEL FORDE.‡
Minister for Post-war Reconstruction	Hon. JOSEPH BENEDICT CHIFLEY† (to 2.2.45). Hon. JOHN JOHNSTONE DEDMAN (from 2.2.45).
Minister for Supply and Shipping	Hon. JOHN ALBERT BEASLEY§ (to 2.2.45). Senator the Hon. WILLIAM PATRICK ASHLEY (from 2.2.45).
Minister for the Navy and Minister for Munitions	Hon. NORMAN JOHN OSWALD MAKIN.
Minister for Trade and Customs ..	Senator the Hon. RICHARD VALENTINE KEANE.
Minister for Labour and National Service	Hon. EDWARD JAMES HOLLOWAY.‖
Minister for Air and Minister for Civil Aviation	Hon. ARTHUR SAMUEL DRAKEFORD.
Minister for Commerce and Agriculture	Hon. WILLIAM JAMES SCULLY.
Postmaster-General	Senator the Hon. WILLIAM PATRICK ASHLEY (to 2.2.45). Senator the Hon. DONALD CAMERON (from 2.2.45).
Vice-President of the Executive Council	Senator the Hon. WILLIAM PATRICK ASHLEY (to 2.2.45). Hon. JOHN ALBERT BEASLEY§ (from 2.2.45).
Minister for the Interior .	Senator the Hon. JOSEPH SILVER COLLINGS.
Minister for Transport and Minister for External Territories	Hon. EDWARD JOHN WARD.
Minister for Health and Minister for Social Services	Senator the Hon. JAMES MACKINTOSH FRASER.

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* Died in office, 5th July, 1945. † P.C., 1945. ‡ P.C., 1944. § P.C., 1946. ‖ P.C., 1950.

MINISTRIES—*continued.*

CURTIN MINISTRY—21st September, 1943 to 6th July, 1945—*continued.*

Departments.	*Ministers.*
Minister for Repatriation and Minister in charge of War Service Homes	Hon. CHARLES WILLIAM FROST.
Minister for Aircraft Production ..	Senator the Hon. DONALD CAMERON (to 2.2.45). Hon. NORMAN JOHN OSWALD MAKIN (from 2.2.45).
Minister for Information ..	Hon. ARTHUR AUGUSTUS CALWELL.
Minister for Home Security and Minister for Works(*a*)	Hon. HUBERT PETER LAZZARINI.
Minister for War Organization of Industry(*b*)	Hon. JOHN JOHNSTONE DEDMAN (to 19.2.45).
Minister in charge of the Council for Scientific and Industrial Research	Hon. JOHN JOHNSTONE DEDMAN.

(*a*) Department of Works created, 2nd February, 1945. (*b*) Department of War Organization of Industry abolished, 19th February, 1945, and became a Directorate of the Department of Post-war Reconstruction from that date.

FORDE MINISTRY—6th July to 13th July, 1945.

Departments.	*Ministers.*
Prime Minister and Minister for the Army	Rt. Hon. FRANCIS MICHAEL FORDE.
Treasurer	Rt. Hon. JOSEPH BENEDICT CHIFLEY.
Attorney-General and Minister for External Affairs	Rt. Hon. HERBERT VERE EVATT, LL.D., D.Litt., K.C.
Minister for Defence and Vice-President of the Executive Council	Hon. JOHN ALBERT BEASLEY.*
Minister for the Navy, Minister for Munitions, and Minister for Aircraft Production	Hon. NORMAN JOHN OSWALD MAKIN.
Minister for Trade and Customs..	Senator the Hon. RICHARD VALENTINE KEANE.
Minister for Labour and National Service	Hon. EDWARD JAMES HOLLOWAY.†
Minister for Air and Minister for Civil Aviation	Hon. ARTHUR SAMUEL DRAKEFORD.
Minister for Commerce and Agriculture	Hon. WILLIAM JAMES SCULLY.
Minister for Supply and Shipping	Senator the Hon. WILLIAM PATRICK ASHLEY.
Minister for Post-war Reconstruction and Minister in charge of the Council for Scientific and Industrial Research	Hon. JOHN JOHNSTONE DEDMAN.
Minister for the Interior ..	Senator the Hon. JOSEPH SILVER COLLINGS.
Minister for Transport and Minister for External Territories	Hon. EDWARD JOHN WARD.
Minister for Health and Minister for Social Services	Senator the Hon. JAMES MACKINTOSH FRASER.
Minister for Repatriation and Minister in charge of War Service Homes	Hon. CHARLES WILLIAM FROST.
Minister for Home Security and Minister for Works(*a*)	Hon. HUBERT PETER LAZZARINI.
Postmaster-General	Senator the Hon. DONALD CAMERON.
Minister for Information ..	Hon. ARTHUR AUGUSTUS CALWELL.

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* P.C., 1946. † P.C., 1950.

(*a*) Department abolished, 13th July, 1945. Department of Works and Housing created on same date, Mr. Lazzarini holding the portfolio.

CHIFLEY MINISTRY—13th July, 1945 to 1st November, 1946.

Departments.	*Ministers.*
Prime Minister and Treasurer ..	Rt. Hon. JOSEPH BENEDICT CHIFLEY.
Attorney-General and Minister for External Affairs	Rt. Hon. HERBERT VERE EVATT, LL.D., D.Litt., K.C.
Minister for the Army (and Deputy Prime Minister) and Acting Minister for Defence (from 20.12.45)	Rt. Hon. FRANCIS MICHAEL FORDE.
Minister for Defence and (from 20.12.45) Resident Minister in London	Hon. JOHN ALBERT BEASLEY.*
Minister for the Navy, Minister for Munitions, and Minister for Aircraft Production(*a*)	Hon. NORMAN JOHN OSWALD MAKIN.†

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* P.C., 1946. † Appointed Ambassador to the United States of America, 3rd August, 1946.

(*a*) Department abolished, 1st November, 1946.

MINISTRIES—*continued.*

CHIFLEY MINISTRY—13th July, 1945 to 1st November, 1946—*continued.*

Departments.	*Ministers.*
Minister for Trade and Customs..	Senator the Hon. RICHARD VALENTINE KEANE* (to 27.4.46). Hon. JOHN JOHNSTONE DEDMAN (from 29.4.46 to 18.6.46). Senator the Hon. JAMES MACKINTOSH FRASER (from 18.6.46).
Minister for Labour and National Service	Hon. EDWARD JAMES HOLLOWAY.†
Minister for Air and Minister for Civil Aviation	Hon. ARTHUR SAMUEL DRAKEFORD.‡
Minister for Commerce and Agriculture	Hon. WILLIAM JAMES SCULLY.
Minister for Supply and Shipping	Senator the Hon. WILLIAM PATRICK ASHLEY.
Minister for Post-war Reconstruction and Minister in charge of the Council for Scientific and Industrial Research	Hon. JOHN JOHNSTONE DEDMAN.§
Vice-President of the Executive Council	Senator the Hon. JOSEPH SILVER COLLINGS.
Minister for Transport and Minister for External Territories	Hon. EDWARD JOHN WARD.
Minister for Repatriation ..	Hon. CHARLES WILLIAM FROST.
Minister for Works and Housing(*a*) and (until 1.2.46) Minister for Home Security(*b*)	Hon. HUBERT PETER LAZZARINI.
Postmaster-General	Senator the Hon. DONALD CAMERON.
Minister for Immigration(*a*) and Minister for Information	Hon. ARTHUR AUGUSTUS CALWELL.
Minister for the Interior .	Hon. HERBERT VICTOR JOHNSON.
Minister for Health and Minister for Social Services	Senator the Hon. JAMES MACKINTOSH FRASER (to 18.6.46). Senator the Hon. NICHOLAS EDWARD MCKENNA (from 18.6.46).

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* Died in office. † P.C., 1950. ‡ Acting Minister for the Navy from 3rd August, 1946.
§ Acting Minister for Munitions and Acting Minister for Aircraft Production from 3rd August, 1946.
(*a*) Department created, 13th July, 1945. (*b*) Department abolished, 1st February, 1946.

CHIFLEY MINISTRY—1st November, 1946 to 19th December, 1949.

Departments.	*Ministers.*
Prime Minister and Treasurer ..	Rt. Hon. JOSEPH BENEDICT CHIFLEY.
Attorney-General and Minister for External Affairs (and Deputy Prime Minister)	Rt. Hon. HERBERT VERE EVATT, LL.D., D.Litt., K.C.
Minister for Labour and National Service	Hon. EDWARD JAMES HOLLOWAY.*
Minister for Air and Minister for Civil Aviation	Hon. ARTHUR SAMUEL DRAKEFORD.
Vice-President of the Executive Council	Hon. WILLIAM JAMES SCULLY.
Minister for Supply and Shipping(*a*) (and Leader of the Government in the Senate)	Senator the Hon. WILLIAM PATRICK ASHLEY.
Minister for Defence, Minister for Post-war Reconstruction and Minister in charge of the Council for Scientific and Industrial Research(*b*)	Hon. JOHN JOHNSTONE DEDMAN.
Minister for Transport and Minister for External Territories	Hon. EDWARD JOHN WARD.
Postmaster-General .. .	Senator the Hon. DONALD CAMERON.
Minister for Information and Minister for Immigration	Hon. ARTHUR AUGUSTUS CALWELL.
Minister for the Interior ..	Hon. HERBERT VICTOR JOHNSON.
Minister for Health and Minister for Social Services (and Deputy Leader of the Government in the Senate)	Senator the Hon. NICHOLAS EDWARD MCKENNA.
Minister for Commerce and Agriculture	Hon. REGINALD THOMAS POLLARD.
Minister for Works and Housing..	Hon. NELSON LEMMON.
Minister for Munitions(*c*) ..	Senator the Hon. JOHN IGNATIUS ARMSTRONG.
Minister for the Army	Hon. CYRIL CHAMBERS.
Minister for Trade and Customs..	Senator the Hon. BENJAMIN COURTICE.
Minister for the Navy	Hon. WILLIAM JAMES FREDERICK RIORDAN.
Minister for Repatriation ..	Hon. HERBERT CLAUDE BARNARD.

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* P.C., 1950.
(*a*) Department abolished, 6th April, 1948. Department of Shipping and Fuel created on same date, Senator Ashley holding the portfolio. (*b*) Designation of Mr. Dedman as Minister for Defence and Minister for Post-war Reconstruction from 19th May, 1949. (*c*) Department abolished, 6th April, 1948. Department of Supply and Development created on same date, Senator Armstrong holding the portfolio.

MINISTRIES—*continued*.

MENZIES MINISTRY—19th December, 1949 to 11th May, 1951.

Departments.	*Ministers.*
Prime Minister	Rt. Hon. ROBERT GORDON MENZIES, K.C.*
Treasurer	Rt. Hon. ARTHUR WILLIAM FADDEN.†
Minister for Defence and Minister for Post-war Reconstruction(*a*)	Hon. ERIC JOHN HARRISON (to 24.10.50). Hon. PHILIP ALBERT MARTIN MCBRIDE (from 24.10.50).
Minister for Labour and National Service and Minister for Immigration	Hon. HAROLD EDWARD HOLT.
Minister for Commerce and Agriculture	Hon. JOHN MCEWEN.
Minister for External Affairs and Minister for External Territories	Hon. PERCY CLAUDE SPENDER, K.C.
Minister for Supply and Development(*b*) and Minister for Works and Housing	Rt. Hon. RICHARD GARDINER CASEY, C.H., D.S.O., M.C.
Minister for the Interior ..	Hon. PHILIP ALBERT MARTIN MCBRIDE (to 24.10.50). Hon. ERIC JOHN HARRISON (from 24.10.50).
Minister for Health	Rt. Hon. SIR EARLE CHRISTMAS GRAFTON PAGE, G.C.M.G., C.H.
Minister for Trade and Customs ..	Senator the Hon. NEIL O'SULLIVAN.
Minister for Shipping and Fuel(*c*)	Senator the Hon. GEORGE MCLEAY.
Minister for Air and Minister for Civil Aviation	Hon. THOMAS WALTER WHITE, D.F.C., V.D.
Postmaster-General, ...	Hon. HUBERT LAWRENCE ANTHONY.
Minister for the Army and Minister for the Navy	Hon. JOSIAH FRANCIS.
Attorney-General	Senator the Hon. JOHN ARMSTRONG SPICER, K.C.
Vice-President of the Executive Council	Hon. DAME ENID MURIEL LYONS, G.B.E. (to 7.3.51). Rt. Hon. ROBERT GORDON MENZIES, K.C.* (from 7.3.51).
Minister for Social Services ..	Senator the Hon. WILLIAM HENRY SPOONER, M.M.
Minister for Repatriation ..	Senator the Hon. WALTER JACKSON COOPER, M.B.E.
Minister for Information(*d*) and Minister for Transport(*d*)	Hon. OLIVER HOWARD BEALE.‡

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* C.H., 1951. † K.C.M.G., 1951. ‡ K.C., 1950.

(*a*) Department of Post-war Reconstruction abolished, 16th March, 1950. (*b*) Department abolished, 16th March, 1950. Mr. Casey appointed Minister for National Development and Minister for Works and Housing. (*c*) Department abolished, 16th March, 1950. Senator McLeay appointed Minister for Fuel, Shipping and Transport. (*d*) Departments abolished, 16th March, 1950. Mr. Beale appointed Minister for Supply.

MENZIES MINISTRY—from 11th May, 1951 (as at 31st July, 1951).

Departments.	*Ministers.*
Prime Minister	Rt. Hon. ROBERT GORDON MENZIES, C.H., K.C.
Treasurer	Rt. Hon. ARTHUR WILLIAM FADDEN.*
Vice-President of the Executive Council and Minister for Defence Production	Hon. ERIC JOHN HARRISON.
Minister for Labour and National Service and Minister for Immigration	Hon. HAROLD EDWARD HOLT.
Minister for Commerce and Agriculture	Hon. JOHN MCEWEN.
Minister for External Affairs ..	Rt. Hon. RICHARD GARDINER CASEY, C.H., D.S.O., M.C.
Minister for Defence ..	Hon. PHILIP ALBERT MARTIN MCBRIDE.
Minister for the Navy and Minister for Air	Hon. PHILIP ALBERT MARTIN MCBRIDE (to 17.7.51). Hon. WILLIAM MCMAHON (from 17.7.51).
Minister for Health	Rt. Hon. SIR EARLE CHRISTMAS GRAFTON PAGE, G.C.M.G., C.H.
Minister for Trade and Customs ..	Senator the Hon. NEIL O'SULLIVAN.
Minister for Shipping and Transport	Senator the Hon. GEORGE MCLEAY.
Postmaster-General and Minister for Civil Aviation	Hon. HUBERT LAWRENCE ANTHONY.
Minister for the Army	Hon. JOSIAH FRANCIS.
Attorney-General	Senator the Hon. JOHN ARMSTRONG SPICER, K.C.
Minister for National Development	Senator the Hon. WILLIAM HENRY SPOONER, M.M.
Minister for Repatriation ..	Senator the Hon. WALTER JACKSON COOPER, M.B.E.
Minister for Supply	Hon. HOWARD BEALE, K.C.
Minister for the Interior and Minister for Works and Housing	Hon. WILFRED SELWYN KENT HUGHES, M.V.O., O.B.E., M.C., E.D.
Minister for Social Services ..	Hon. ATHOL GORDON TOWNLEY.
Minister for Territories.. ..	Hon. PAUL MEERNAA CAEDWALLA HASLUCK.

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* K.C.M.G., June, 1951.

(iii) *Commonwealth Ministers of State.* In Official Year Book No. 38 a statement was included showing the names of the Ministers of State who had administered the several Departments during the period 1st April, 1925 to 31st December, 1949 (pp. 74–79). This was in continuation of a similar statement covering the period from the inauguration of Commonwealth Government to 1925 which appeared in Official Year Book No. 18. The information is not repeated in this issue, but can of course be brought up-to-date by reference to the foregoing list.

2. **Governors and State Ministers.**—The names of the Governors and members of the Ministries in each State in July, 1951 are shown in the following statement. The date on which each Ministry was sworn in is stated in parenthesis :—

NEW SOUTH WALES.

Governor—Sir John Northcott, K.C.M.G., C.B., M.V.O.

Ministry (*sworn in* 30*th June*, 1950).

Premier and Colonial Treasurer—
The Hon. J. McGirr.

Deputy Premier, Secretary for Public Works and Minister for Local Government—
The Hon. J. J. Cahill.

Chief Secretary, Minister for Co-operative Societies and Assistant Treasurer—
The Hon. Clive R. Evatt, K.C.

Minister for Education—
The Hon. R. J. Heffron.

Attorney-General—
The Hon. C. E. Martin.

Minister of Justice and Vice-President of the Executive Council—
The Hon. R. R. Downing, M.L.C.

Minister for Housing—
The Hon. C. A. Kelly.

Minister for Health—
The Hon. M. O'Sullivan.

Minister for Secondary Industries and Minister for Building Materials—
The Hon. W. E. Dickson, M.L.C.

Minister for Agriculture—
The Hon. E. H. Graham.

Minister for Conservation—
The Hon. G. Weir.

Minister for Labour and Industry and Minister for Social Welfare—
The Hon. F. J. Finnan.

Minister for Transport—
The Hon. W. F. Sheahan.

Secretary for Mines and Minister for Immigration—
The Hon. J. G. Arthur.

Minister without Portfolio—
The Hon. F. H. Hawkins.

Secretary for Lands—
The Hon. J. B. Renshaw.

VICTORIA.

Governor—General Sir Reginald Alexander Dallas Brooks, K.C.B., C.M.G., D.S.O.

Ministry (*sworn in* 27*th June*, 1950).

Premier and Treasurer—
The Hon. J. G. B. McDonald.

Chief Secretary, Minister in Charge of Electrical Undertakings, and Minister in Charge of Immigration—
The Hon. Keith Dodgshun.

Commissioner of Crown Lands and Survey, Minister of Soldier Settlement, Minister of Forests, and President of the Board of Lands and Works—
The Hon. Sir Albert Lind.

Minister of Transport, Minister of State Development, Minister in Charge of Prices, and a Vice-Preisdent of the Board of Lands and Works—
The Hon. H. J. T. Hyland.

Commissioner of Public Works, and a Vice-President of the Board of Lands and Works—
The Hon. P. T. Byrnes, M.L.C.

Minister of Education—
The Hon. P. P. Inchbold, M.L.C.

Minister of Agriculture, Minister of Mines, and a Vice-President of the Board of Lands and Works—
The Hon. G. C. Moss.

Minister of Water Supply, and Minister for Conservation—
The Hon. R. K. Brose.

Minister of Health—
The Hon. W. O. Fulton.

Attorney-General, and Solicitor-General—
The Hon. T. W. Mitchell.

Minister in Charge of Housing, and Minister in Charge of Materials—
The Hon. I. A. Swinburne, M.L.C.

Minister of Labour—
The Hon. Trevor Harvey, M.L.C.

Minister without Portfolio—
The Hon. R. T. White.

GOVERNORS AND STATE MINISTERS—*continued.*

QUEENSLAND.

Governor—LIEUT.-GENERAL SIR JOHN DUDLEY LAVARACK, K.B.E., C.B., C.M.G., D.S.O.

Ministry (sworn in 10th May, 1950).

Premier and Chief Secretary; and Vice-President of the Executive Council—
THE HON. E. M. HANLON.

Treasurer—
THE HON. V. C. GAIR.

Secretary for Public Lands and Irrigation—
THE HON. T. A. FOLEY.

Secretary for Agriculture and Stock—
THE HON. H. H. COLLINS.

Attorney-General—
THE HON. J. LARCOMBE.

Secretary for Labour and Industry—
THE HON. A. JONES.

Minister for Transport—
THE HON. J. E. DUGGAN.

Secretary for Mines and Immigration—
THE HON. W. POWER.

Secretary for Public Instruction—
THE HON. G. H. DEVRIES.

Secretary for Health and Home Affairs—
THE HON. W. M. MOORE.

Secretary for Public Works, Housing and Local Government—
THE HON. P. J. R. HILTON.

SOUTH AUSTRALIA.

Governor—LIEUT.-GENERAL SIR CHARLES WILLOUGHBY MOKE NORRIE, K.C.M.G., C.B., D.S.O., M.C.

Ministry (sworn in 15th May, 1944).

Premier, Treasurer, Minister of Immigration and Minister of Industry and Employment—
THE HON. T. PLAYFORD.

Chief Secretary, Minister of Health, and Minister of Mines—
THE HON. A. L. MCEWIN, M.L.C.

Attorney-General and Minister of Education—
THE HON. R. J. RUDALL, M.L.C.

Minister of Lands, Minister of Repatriation, and Minister of Irrigation—
THE HON. C. S. HINCKS.

Minister of Works, Minister of Railways, Minister of Marine, and Minister of Local Government—
THE HON. M. MCINTOSH.

Minister of Agriculture and Minister of Forests—
THE HON. SIR GEORGE JENKINS, K.B.E

WESTERN AUSTRALIA.

Administrator—THE HON. SIR JOHN PATRICK DWYER, K.C.M.G.*

Ministry (sworn in 1st April, 1947).

Premier and Treasurer—
THE HON. D. R. MCLARTY, M.M.

Minister for Education, Child Welfare and Industrial Development—
THE HON. A. F. WATTS, C.M.G.

Minister for Works and Water Supply—
THE HON. D. BRAND.

Minister for Lands, Labour and Immigration—
THE HON. L. THORN.

Attorney-General and Minister for Police and Fisheries—
THE HON. A. V. R. ABBOTT.

Chief Secretary and Minister for Local Government and Native Affairs—
THE HON. V. DONEY.

Minister for Health and Supply and Shipping—
THE HON. DAME ANNIE F. G. CARDELL-OLIVER, D.B.E.

Minister for Transport, Railways and Mines—
THE HON. C. H. SIMPSON, M.L.C.

Minister for Agriculture and the North-West—
THE HON. G. B. WOOD, M.L.C.

Minister for Housing and Forests—
THE HON. G. P. WILD, M.B.E.

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* In November, 1951, Lieut.-General Sir Charles Gairdner, K.C.M.G., C.B., C.B.E., assumed the administration of the Government of Western Australia as Governor.

GOVERNORS AND STATE MINISTERS—*continued.*

TASMANIA.

Administrator—THE HON. SIR JOHN DEMETRIUS MORRIS.*

Ministry (sworn in 25th February, 1948).

Premier, Minister for Education and Minister administering Hydro-Electric Commission Act—
THE HON. R. COSGROVE.

Attorney-General—
THE HON. R. F. FAGAN.

Treasurer and Minister for Transport—
THE HON. J. L. MADDEN.

Minister for Agriculture—
THE HON. J. J. DWYER, V.C.

Minister for Lands and Works and Minister for Mines—
THE HON. E. E. REECE.

Chief Secretary—
THE HON. A. J. WHITE.

Honorary Ministers—
THE HON. C. H. HAND
(Minister for Forests and Minister controlling the Tourist and Immigration Department).

THE HON. C. A. BRAMICH
(Minister for Housing).

THE HON. R. J. D. TURNBULL
(Minister for Health).

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* In August, 1951, The Rt. Hon. Sir Ronald Hibbert Cross, Bt., assumed the administration of the Government of Tasmania as Governor.

4. **The Course of Legislation.**—The actual legislation by the Commonwealth Parliament up to the end of 1950 is indicated in alphabetical order in Vol. XLVIII. "The Acts of the Parliament of the Commonwealth of Australia passed during the year 1950, in the First Session of the Nineteenth Parliament of the Commonwealth, with Tables, Appendix and Index." A "Chronological Table of Acts passed from 1901 to 1950, showing how they are affected by subsequent legislation or lapse of time" is also given, and, further, "A Table of Commonwealth Legislation passed from 1901 to 1950 in relation to the several provisions of the Constitution", is furnished. Reference should be made to these for complete information.

5. **Legislation during 1949 and 1950.**—The following paragraphs present a selection from the legislative enactments of the Commonwealth and State Parliaments during the years 1949 and 1950. The acts included have been selected as the more important new measures and amending measures enacted during these years. The selection is somewhat arbitrary, however, because of the task of determining, in view of the limitations on space that might reasonably be allotted, the relative importance of the more than 900 acts passed during the period. Certain principles regulating the choice of acts have nevertheless been generally observed. Ordinary appropriation and loan acts are excluded, as are also acts relating to less important changes in existing forms of taxation, in superannuation and pension schemes, and in workers' compensation. Acts providing for minor amendments to existing statutes and continuance acts are similarly excluded.

The total enactments of the Commonwealth and State Parliaments for a number of years at fairly even intervals since 1901 show a steady increase during this century. About 270 acts were passed in 1901, 320 in 1914, 410 in 1927, 430 in 1939 and 460 in 1950. The acts of the Commonwealth Parliament during these years numbered 17, 36, 38, 87 and 80 respectively. During 1948, 530 acts were passed (Commonwealth, 93) and in 1949, 450 (Commonwealth, 87).

Commonwealth—1949.—*Christmas Island Agreement.* Authorizes the execution of an agreement between Australia and New Zealand to set up a commission to work the phosphate deposits on Christmas Island.

Coal Industry (Tasmania). Provides for means, in conjunction with the Government of Tasmania, to assist in meeting the need for coal throughout Australia and for the regulation and improvement of the coal industry in Tasmania.

Coal Excise. Relates to the imposition of an excise on coal for the purpose of financing the Coal Mining Industry Long Service Leave Fund—*see* States Grants (Coal Mining Industry Long Service Leave) Act below.

Commonwealth Conciliation and Arbitration. An amending Act making provision for the prevention of irregularities in the elections for offices in organizations registered under the Act, and vesting in the Commonwealth Court of Conciliation and Arbitration additional powers for the prevention of these irregularities.

Defence. An amending Act, it provides, *inter alia*, for the establishment of the Permanent Military Forces into Active Forces and Reserve Forces, and constitutes the Reserve Citizen Military Forces and the Australian Cadet Corps.

Genocide Convention. Approves the ratification by Australia of the Convention on the Prevention and Punishment of the Crime of Genocide.

International Wheat Agreement. Approves the acceptance by Australia of the International Wheat Agreement, and repeals the International Wheat Agreement Act 1948.

Liquid Fuel (Defence Stocks). Provides, in the interests of Defence, for the maintenance of stocks of liquid fuel within Australia.

Liquid Fuel (Rationing). To ensure, so far as Commonwealth legislative power permits, a just and orderly sharing of liquid fuel while it is in short supply. (In June, 1949, the Full High Court had declared invalid the National Security (Liquid Fuel) Regulations. *See also* State Acts.)

National Emergency (Coal Strike). Prohibits, during the period of national emergency caused by the general strike in the coal-mining industry, the contribution, receipt or use of funds by organizations registered under the Commonwealth Conciliation and Arbitration Act for the purpose of assisting or encouraging the continuance of the strike.

Papua and New Guinea. Approves the placing of the Territory of New Guinea under the International Trusteeship System, and provides for the government of the Territory of Papua and the Territory of New Guinea.

Railway Standardization (South Australia) Agreement. Authorizes the execution of an agreement between the Commonwealth and South Australia for the standardization of railways in South Australia and the Northern Territory.

Science and Industry Research. Repeals the Acts establishing the Commonwealth Council for Scientific and Industrial Research and constitutes the Commonwealth Scientific and Industrial Research Organization.

Shipping. Creates the Australian Shipping Board with power to establish, maintain and operate interstate, territorial and oversea shipping services.

Snowy Mountains Hydro-electric Power. Creates the Snowy Mountains Hydro-electric Authority to generate electricity in the Snowy Mountains and to supply it to the Commonwealth for defence purposes and for consumption in the Australian Capital Territory.

States Grants (Coal Mining Industry Long Service Leave). Provides for financial assistance to the States in respect of the cost of long service leave granted to coal mining employees. (*See also* State Acts.)

States Grants (Encouragement of Meat Production). Provides, in order to develop meat production, for financial assistance to Queensland and Western Australia for the construction and improvement of roads and other facilities for the movement of live-stock.

Stevedoring Industry. Provides for the prevention or settlement of industrial disputes, and regulates matters connected with stevedoring operations; repeals the Act establishing the Stevedoring Industry Commission; establishes the Australian Stevedoring Industry Board.

War-time Refugees Removal. Provides for the removal from Australia of certain aliens who entered during the 1939–45 War.

Whaling Industry. Provides for the establishment of an Australian Whaling Commission to carry on whaling activities.

1950.—*Australian Soldiers' Repatriation.* Amends the Principal Act, *inter alia* extending the application of its provisions to members of the forces engaged in the Korean and Malayan operations.

Brachina to Leigh Creek North Coalfield Railway. Authorizes the execution of an agreement with South Australia for the construction by the Commonwealth of a standard gauge railway between Brachina and Leigh Creek North Coalfield, in order to transport coal for a regional power station at Port Augusta with maximum efficiency and economy in railway operation.

Commonwealth Aid Roads. Provides for financial assistance to the States for road works and works connected with transport for a period of five years from 1st July, 1950.

Communist Party Dissolution. Provides for the dissolution of the Australian Communist Party and of other Communist organizations; disqualifies Communists from holding certain offices. (Declared invalid by High Court in March, 1951.)

Defence Forces Retirement Benefits. Amends the Principal Act, *inter alia* extending its application to members of the Nursing Services.

Flax Canvas Bounty. Provides for the payment of a bounty on the production of flax canvas.

Loan (International Bank for Reconstruction and Development). Authorizes the raising of a $100,000,000 loan from the International Bank for Reconstruction and Development, to be applied to the costs of goods for certain developmental works.

Social Services Consolidation. An amending Act extending child endowment at the rate of 5s. per week to the first or only child in each family.

States Grants (Imported Houses). Provides for financial assistance to the States for the importation of houses into Australia.

States Grants (Milk for School Children). Provides for financial assistance to the States in the provision by the States of milk for school children.

Statute Law Revision. Revises the Statute Law of the Commonwealth.

Wool (Reserve Prices) Fund. Establishes a fund for the purposes of a scheme of reserve prices for wool. (Scheme subsequently rejected at a referendum of woolgrowers.)

Wool Sales Deduction. Acts providing for the payment to the Commonwealth of a proportion of the value of wool sold or exported on and after 26th August, 1950.

New South Wales—1949.—*Bush Fires.* A consolidating law in relation to the prevention, control and suppression of bush fires and other fires in areas not within fire districts under the Fire Brigades Act; it establishes a Bush Fire Fighting Fund comprised of contributions by the State Treasury, Councils in affected areas, and insurance companies.

Conservation Authority of New South Wales. Provides for a Conservation Authority of New South Wales to plan and control water, timber and soil conservation; to co-ordinate the activities of the Water Conservation and Irrigation Commission, the Forestry Commission of New South Wales and the Soil Conservation Service; changes the constitution of those Commissions and provides for a Commissioner of the Soil Conservation Service.

District Courts (Amendment). Re-defines and extends the jurisdiction of District Courts, confers an equitable jurisdiction upon them, enables judges to order consolidation to trials, requires judges to meet at least six-monthly to review, and make recommendations in regard to, the working of the Courts, and empowers them to make rules of Court. Questions of fact in undefended matrimonial cases are made triable in District Courts in certain cases.

Emergency Powers. Makes provision for the protection of the community in the event of interruption or dislocation of the supply or provision of essential services or commodities.

Farm Colony Type Mental Hospital Construction. Sanctions and provides for the construction of a mental hospital of the farm colony type; estimated cost, £2,000,000.

Lake Illawarra and Cowra Power Stations (Construction). Authorizes the construction of electricity generation stations at Lake Illawarra and Cowra; estimated cost £10,000,000 and £250,000, respectively.

Landlord and Tenant (Amendment). Provides for the determination of rent and the appointment of Fair Rent Boards; repeals the Act of 1948.

Liquid Fuel. Makes provision for the preservation and continuance in operation of Commonwealth Regulations relating to the rationing and distribution of liquid fuel. (*See also* Acts of the Commonwealth and of other States.)

Menindee Water Conservation. Authorizes works to create water storages totalling 2,015,000 acre feet in the Darling River and Lakes Bijijie, Tandure, Pamamaroo, Menindee and Cawndilla; estimated cost, £2,300,000.

Mental Institutions Benefits Agreement. Ratifies the Commonwealth–State agreement relating to the provision by the Commonwealth of financial assistance for persons in mental institutions, provided no means test is imposed nor fees charged. (Corresponding Commonwealth Act was assented to in December, 1948. *See also* Acts of other States.)

Parliamentary Electorates and Elections (*Amendment*). Increases the number of members of the Legislative Assembly from 90 to 94, provides for the distribution of electoral districts by the Electoral Commissioner, amends the conditions of postal voting and provides for voting by invalids, etc., before an electoral visitor.

River Murray Waters (*Amendment*). Ratifies an agreement amending earlier intergovernmental agreements regarding the economical use of the waters of the Murray River and its tributaries, etc. (Corresponding Commonwealth and South Australian Acts were assented to in 1948. For Victorian Act *see* below.)

Survey Co-ordination. Provides for the co-ordination of surveys and for a central plans office to record surveys, plans, etc., of all public authorities.

Technical Education and New South Wales University of Technology. Provides for a separate Department of Technical Education, for the establishment and incorporation of the New South Wales University of Technology, for the constitution of a Technical Education Advisory Council and of a Council of the University, and for the administration of technical education generally.

Tuberculosis. Authorizes the execution by the State of arrangements with the Commonwealth under which the Commonwealth reimburses the State for certain expenditure in a campaign to reduce the incidence, and to provide adequate facilities for diagnosis, treatment and control of tuberculosis. (Corresponding Commonwealth Act was assented to in November, 1948. *See also* Acts of other States.)

Western Lands (*Amendment*). Provides for the withdrawal of further areas from Western Land leases and makes certain provisions affecting land administration in the Western Division, including the imposition of conditions in the interests of soil conservation.

1950.—*Clarence Harbour Works.* Sanctions the construction of works for Clarence Harbour; estimated cost, £3,000,000.

Constitution Amendment (*Legislative Assembly*). Provides that the duration of any Legislative Assembly shall not be extended beyond three years without approval of the electors on a referendum.

Crimes (*Amendment*). Provides for the constitution of a Parole Board to consider cases of prisoners and recommend whether the prisoner should be granted a licence to be at large.

Electricity Commission. To constitute the Electricity Commission of New South Wales and empower it to co-ordinate and control public electricity works and development, to take over electricity undertakings of public authorities, acquire certain private undertakings, and to exercise powers over supply and control of electricity in emergencies.

Glen Innes to Inverell Railway. Authorizes the construction of a railway from Glen Innes to Inverell (50 miles); estimated cost, £3,000,000.

Hume Dam Hydro-Electric Development (*Construction*). Sanctions the construction of a 75 k.w. hydro-electric power station at Hume Dam, substations and transmission lines; estimated cost, £3,100,000.

Hunter Valley Conservation Trust. To constitute the Hunter Valley Conservation Trust and empower the Trust to take measures in mitigation of floods, and to conserve the natural resources of the Hunter Valley.

Industrial Arbitration (*Basic Wage*) *Amendment.* Requires the Industrial Commission to apply basic wage decisions of the Commonwealth Court of Conciliation and Arbitration in State Awards, etc.

Meat Industry (*Amendment*). To constitute the Metropolitan Meat Industry Board, replacing the Metropolitan Meat Industry Commissioner and the Metropolitan Meat Industry Advisory Council.

Transport and Highways. Provides for the integration of public and private rail, road, air, sea and inland water-way transport, the constitution of the New South Wales Transport and Highways Commission and the appointment of a Director of Transport and Highways; brings the Commissioners for Railways, for Road Transport and Tramways and for Main Roads, and the Maritime Services Board, under the control of the Commission.

Warkworth Flood Mitigation and Water Conservation. Sanctions construction of an earth dam on Wollombi Brook and related works, to store about 400,000 acre feet of water for mitigation of floods and conservation of water; estimated cost, £2,500,000.

War Service Land Settlement and Closer Settlement Validation. Validates certain resumptions for war service land settlement and certain other matters; vests certain lands in the Crown for the purposes of the Closer Settlement Acts; amends certain Acts and repeals the War Service Land Settlement Agreement Act 1945.

Victoria—1949.—*Agricultural Education.* Consolidates and amends the law relating to agricultural education; provides for the appropriation of money to the University of Melbourne for the purposes of agricultural education and research.

Crimes. Amends the law relating to crimes and criminal offenders; *inter alia* abolishes the death penalty in all cases except treason and murder.

Health (*Tuberculosis Arrangement*). Ratifies an arrangement with the Commonwealth to participate in a scheme to reduce the incidence of tuberculosis. (Corresponding Commonwealth Act was assented to in November, 1948. *See also* Acts of other States.)

Latrobe Valley Development Loan and Application Act. Authorizes, in connexion with the development of the Latrobe Valley, the raising and application of money for approved works, for compensation for land purchased or prejudicially affected, and for land acquired for the development of brown coal resources.

Liquid Fuel. Provides for the equitable distribution of supplies of liquid fuel available in Victoria. (*See also* Acts of the Commonwealth and of other States.)

Mental Institution Benefits. Authorizes and approves the execution of an agreement with the Commonwealth whereby the latter provides financial assistance for persons in mental institutions. (Corresponding Commonwealth Act was assented to in December, 1948. *See also* Acts of other States.)

Milk Pasteurization. Provides for the sale or delivery of none but pasteurized milk in prescribed districts, after days to be proclaimed.

Mothercraft Nurses. Provides for the registration of mothercraft nurses.

River Murray Waters. Ratifies and approves an agreement for the further variation of an agreement regarding the use of the waters of the River Murray and its tributaries. (Corresponding Commonwealth and South Australian Acts were assented to in 1948. For New South Wales Act *see* above.)

Royal Commission (*Communist Party*). Authorizes the appointment of a Royal Commission to investigate the origins, aims, objects, funds and activities in Victoria of the Communist Party.

Rural Finance Corporation. Provides for the establishment of a Rural Finance Corporation to encourage and assist country settlement and development, to stimulate country production, and to improve and develop country industries through loans at the lowest possible rates of interest.

Town and Country Planning (*Metropolitan Area*). Nominates the Melbourne and Metropolitan Board of Works to prepare and submit within the next three years a planning scheme for the whole of the metropolitan area.

1950.—*Coal Mining Industry* (*Long Service Leave*). Establishes a fund to be applied to the reimbursement of employers for amounts paid by them to employees in the coal mining industry in respect of long service leave due under certain awards. (*See* Commonwealth Act—States Grants (Coal Mining Industry Long Service Leave) *also* Acts of other States.)

Gas and Fuel Corporation. Ratifies an agreement between the State of Victoria and The Metropolitan Gas Company and The Brighton Gas Company Limited, and establishes the Gas and Fuel Corporation of Victoria.

Legislative Council Reform. Introduces adult suffrage at Legislative Council elections and adult qualifications for membership of the Council, amends the law relative to elections for the Council, and re-defines electoral boundaries.

Mental Hygiene Authority. Constitutes the Mental Hygiene Authority in order to provide for the general improvement in matters affecting the treatment, and measures for the prevention, of mental defects, disorders and diseases.

Ministers of the Crown and Parliamentary Salaries. Increases the number of salaried Ministers of the Crown, and the salaries of members of the Legislative Council; provides for the automatic adjustment of the salaries of members of both Houses in accordance with variations in the cost of living.

Nurses and Midwives. Amends the Nurses Acts and Midwives Acts, and provides for the registration of mental nurses.

Shrine of Remembrance Site. Amends the original Act to authorize the erection of a Memorial to commemorate the sacrifice and fortitude of those who served in the 1939–45 War.

Queensland—1949.—*Abattoirs Acts Amendment.* Provides for the establishment of public abattoirs in the larger towns of the State.

Burdekin River Development. Constitutes a Burdekin River Development Authority, and authorizes the construction of dams on the Burdekin River and the utilization of those dams and the waters of the Burdekin River for water conservation, flood mitigation, irrigation, water supply, and the development of hydro-electric power.

Electoral Districts. Divides the State into 75 electoral districts in four zones—Metropolitan (24), South-Eastern (28), North Queensland (13), and Western Queensland (10), with varying quotas of electors.

Liquid Fuel. Makes provision for the preservation and continuance in operation of Commonwealth Regulations relating to the rationing and distribution of liquid fuel. (*See also* Acts of the Commonwealth and of other States.)

Maintenance. Consolidates and amends the law relating to the maintenance of deserted wives and children.

Mental Institution Benefits Agreement. Authorizes the execution of an agreement with the Commonwealth on the provision of financial assistance by the Commonwealth for persons in mental institutions. (Corresponding Commonwealth Act was assented to December, 1948. *See also* Acts of other States.)

Roofing Tiles. Affords protection to home-builders in the quality of the cement or terra-cotta tiles they use, and lays down standards for tiles.

Sewerage, Water Supply, and Gasfitting. Provides a uniform set of water supply and sewerage by-laws, and for the preparation of standard gas-fitting by-laws. Sets up a Board to carry out the functions of examination and licensing of plumbers, gasfitters and drainers.

State Housing Acts, etc., Amendment. Increases advances for building homes and fixes minimum deposit at 15 per cent. of purchase money; encourages prospective home buyers, by periodic payments, to save sufficient money to pay the required deposit; establishes a free insurance scheme to enable the dependants of a bread-winner to acquire possession of the property should the breadwinner die.

Timber Users' Protection. Prevents the use of untreated borer-susceptible timbers in house building or furniture manufacturing.

Traffic. Consolidates traffic laws and brings them up-to-date; provides for drastic treatment and penalties for drunken drivers.

Tuberculosis Agreement. Lays down that the State and Commonwealth Governments shall work together in providing facilities for the treatment of tuberculosis, and makes statutory provision for financial and administrative arrangements and plan of control. (Corresponding Commonwealth Act was assented to in November, 1948. *See also* Acts of other States.).

1950.—*City of Brisbane Acts Amendment.* Divides the City of Brisbane into 24 electoral wards with boundaries corresponding to State electoral boundaries, thus constituting a Council of 24 with a Mayor, instead of 20 and a Mayor.

Commissions of Inquiry. Replaces Official Inquiries Evidence Acts 1910 to 1929; sets out the powers of Commissions of Inquiry and the Commissions; empowers the Chairman to punish contempt; applies provisions of the Criminal Code relating to perjury, etc., to Royal Commissions.

Constitution Acts Amendment. Increases Ministerial and Parliamentary salaries.

Poultry Industry Act Amendment. Enables those engaged in the poultry industry to have representation on the Poultry Advisory Board; establishes a Poultry Industry Fund and empowers the Government to issue precepts on Egg Marketing Boards, and the Poultry Advisory Board to recommend amounts of precepts.

Tully Falls Hydro-Electric Project. Provides for the construction and operation of a major hydro-electric project, which will include works for the storage of the waters of the Tully catchment so as to secure both a reserve water supply during dry seasons and a regulated flow for hydro-generation purposes.

State Housing Acts Amendment. Provides for further increases in advances for home-building (*see* 1949); raises the rate of advance up to 18s. in the £1 on the security offered; reduces deposit on purchase of homes from Housing Commission; authorizes advances to industry for purpose of providing housing for employees.

War Service Land Settlement Validation. Validates certain resumptions for war service land settlement and certain other matters; vests certain lands in the Crown for the purposes of closer settlement; amends certain Acts; repeals The War Service Land Settlement Agreement Act of 1945.

South Australia—1949.—*Advances for Homes Act Amendment.* Extends the maximum amount which may be advanced by the State Bank of South Australia for the purchase of, or discharge of a mortgage on, a dwelling-house.

Building Materials. Repeals the existing Acts dealing with the control of building materials and enacts other provisions to continue in force until 31st December, 1950; defines essential building materials and restricts their use; empowers the Treasurer to provide temporary housing accommodation for persons in need of housing.

Health and Medical Services. Provides for the establishment of an Advisory Council on Health and Medical Services and for the appointment of a Director-General of Public Health and a Director of Tuberculosis.

Highways Act Amendment. In order to define future road widening, empowers the Commissioner of Highways, where satisfied that a main road should be widened, to prepare a plan showing the old and proposed new boundaries of the road and the existing improvements between.

Homes Act Amendment. Increases the maximum amount which the Treasurer will guarantee as a loan for the purpose of acquiring a dwelling-house.

Honey Marketing. Provides for the establishment of The South Australian Honey Board and requires all producers of honey to deliver the honey produced by them to the Board.

Industrial Code Amendment. Provides, in respect of adult male employees, for the automatic variation of awards and orders of the State Industrial Court and State Industrial Boards in accordance with the amount of the automatic increase or decrease in the Commonwealth basic wage.

Land Settlement (Development Leases). Empowers the Governor to grant to the Australian Mutual Provident Society, and any other persons approved by the Minister, a development lease of Crown lands for the purpose of ultimate sale in blocks to selected persons.

Landlord and Tenant (Control of Rents) Act Amendment. Amends and extends the principal Act; includes a new Part relating to protected persons; also a new Part dealing with the control of rents of hotel premises; constitutes a board to determine rents.

Liquid Fuel. Provides for the State to make regulations in respect of the distribution, sale, supply and use of liquid fuel. (*See also* Acts of the Commonwealth and of other States.)

Railways Standardization Agreement. Validates the agreement made on 29th October, 1949 between the Commonwealth and South Australia regarding the standardization of railways in South Australia and the Northern Territory. (For corresponding Commonwealth Act *see* above).

Tuberculosis (Commonwealth Arrangement). Authorizes the Government to enter into an agreement with the Commonwealth for the conduct of a campaign against tuberculosis. (Corresponding Commonwealth Act was assented to in November, 1948. *See also* Acts of other States.)

Uranium Mining. Empowers the Minister of Mines to open and work mines for the mining of uranium, to treat uranium ore and to enter into all incidental transactions.

1950.—*Apprentices.* Repeals and amends earlier Acts to make provision for the technical education and the supervision of the training of apprentices; provides that apprentices in any prescribed trade must attend certain periods at a technical school or class, or take a correspondence class, and that employers must grant the necessary leave.

Brachina to Leigh Creek North Coalfield Railway Agreement. Authorizes the execution of an agreement with the Commonwealth for the construction of a railway between Brachina and Leigh Creek North Coalfield. (*See* Commonwealth Act above.)

Building Materials Act Amendment. Increases the area of a dwelling-house permissible under the Act to a maximum of 12½ squares and the total cost to £1,900.

Electricity Supplies (Country Areas). Provides for grants up to an aggregate of £1,000,000 to the Electricity Trust of South Australia to defray expenditure incurred in generating and distributing electricity to consumers in sparsely settled areas.

Forestry. Creates The Forestry Board and makes further and better provision for the creation and management of State Forests, including planting, and the milling and disposal of timber.

Friendly Societies Act Amendment. Amends the objects for which societies may raise funds; provides for the reprinting of laws and rules of societies with amendments; amends the Act relating to the appropriation and transfer of surplus funds.

Gas Act Amendment. Reduces the average calorific value of gas to be supplied; reduces the standard rate of dividend and amends the provision for the fixing of the price of gas.

Industrial Code Amendment. Makes provision for females similar to that made for males in the Industrial Code Amendment Act 1949 (*see* above).

Land Agents Act Amendment. Provides for the appointment of The Land Agents Board and for inquiries by the Board into misconduct; amends the provisions of the Act relating to land agents' bonds and trust accounts.

Landlord and Tenant (Control of Rents) Act Amendment. Amends the grounds for giving notice to quit and the matters to be considered by the Court.

Lottery and Gaming Act Amendment. Provides for a tax upon winning bets and for the application of the tax.

Western Australia—1949.—*Acts Amendment (Increase in Number of Judges of the Supreme Court).* Amends certain Acts so as to provide for an increase in the number of Judges of the Supreme Court from three to four.

Adoption of Children Act Amendment. Provides, *inter alia*, for the re-registration of the birth of an adopted child in accordance with the name of the child after adoption and the names and residence of its adopting parents.

Increase of Rent (War Restrictions) Act Amendment. Modifies the laws relating to the recovery of premises from protected persons; prohibits in certain cases the eviction of dependants of members of the Forces.

Liquid Fuel (Emergency Provisions). Provides for the assumption by the State of the power to regulate in respect of liquid fuel. (*See also* Acts of Commonwealth and of other States.)

Marketing of Apples and Pears. Provides for the constitution of the Western Australian Apple and Pear Marketing Board with powers to market or assist in the marketing of apples and pears acquired under the Act.

Mental Institution Benefits (*Commonwealth and State Agreement*). Authorizes the State to carry out an agreement with the Commonwealth regarding mental institution benefits. (Corresponding Commonwealth Act was assented to in December, 1948. *See also* Acts of other States.)

Tuberculosis (*Commonwealth and State Arrangement*). Authorizes the State to carry out an arrangement with the Commonwealth respecting a campaign to reduce the incidence of tuberculosis in Australia. (Corresponding Commonwealth Act was assented to in November, 1948. *See also* Acts of other States.)

1950.—*Acts Amendment* (*Allowances and Salaries Adjustment*). *Inter alia*, increases the salaries of members of both Houses of Parliament and the allowances of the holders of certain Parliamentary offices; provides for their adjustment in accordance with variations in the State basic wage.

Acts Amendment (*Increase in Number of Ministers of the Crown*). Amends certain Acts to provide for an increase from eight to ten in the number of Ministers of the Crown and for a corresponding increase in Ministerial Salaries. (In effect, the Act elevates the two Honorary Ministers to the position of full-time Ministers).

Agriculture Protection Board. Provides for the constitution of The Agriculture Protection Board of Western Australia and for the co-ordination of the administration of certain Acts relating to the control, prevention and eradication of noxious weeds and vermin.

Bush Fires. Amends the Principal Act to enable the application of stricter preventive measures and better control of bush fires.

Coal Mining Industry Long Service Leave. Constitutes a fund to compensate employers in the coal mining industry for amounts paid by them to employees in respect of long service leave accrued under certain awards. (*See* Commonwealth Act—States Grants (Coal Mining Industry Long Service Leave), *also* Acts of other States.)

Fauna Protection. Repeals the Game Act; provides for the conservation and protection of fauna; constitutes The Fauna Protection Advisory Committee of Western Australia.

Health Act Amendment. Amends the Principal Act, *inter alia* providing for the compulsory X-ray examination for tuberculosis of persons over the age of fourteen years.

Increase of Rent (*War Restrictions*) *Act Amendment* (*No.* 2). Amends the Principal Act; inserts new sections relating to the recovery of possession of premises in certain circumstances by the lessor; permits increases above the standard rent up to a maximum of 20 per cent. for dwellings and 30 per cent. for other premises.

Industrial Arbitration Act Amendment (*No.* 2). Amends Part VII. of the Industrial Arbitration Act relating to the declaration of the basic wage by the Court of Arbitration; empowers the Court to have regard for the economic capacity of industry as well as workers' "needs".

Noxious Weeds. Provides for the control, prevention and eradication of noxious weeds.

Vermin. Amends the law relating to the control, prevention and eradication of vermin.

Tasmania—1949.—*Agricultural Bank* (*Administration*). An amending Act providing for the appointment of a Director of Housing and a Director of Land Settlement, and for their inclusion in the Board of Management of the Agricultural Bank of Tasmania.

Government Printing Office. Enables the printing office and associated business conducted by the Government Printing Department to be carried on and accounted for as a business undertaking.

Landlord and Tenant. Repeals certain war-time and provisional post-war Acts; provides for the control of rents of certain premises and for regulating the recovery of possession of certain premises.

Mental Institution Benefits (*Agreement*). Authorizes the execution of an agreement with the Commonwealth relating to mental institution benefits. (Corresponding Commonwealth Act was assented to in December, 1948. *See also* Acts of other States.)

National Theatre and Fine Arts Society. Provides for the encouragement of the fine arts, the establishment of a national theatre and the preservation of the Theatre Royal in Hobart.

North Esk Regional Water Supply. Authorizes and provides for the construction, management and operation of a water supply for portions of the municipalities of Evandale, George Town, Lilydale, Saint Leonards and Westbury.

Public Authorities' Land Acquisition. Makes better provision for the acquisition of land required by public and local authorities than that provided under the Land Clauses Act 1857.

Tasmanian Auxiliary Nursing Service. Establishes a Tasmanian Auxiliary Nursing Service consisting of persons registered under the Act; qualifications for registration are a minimum age of seventeen years, completion of the first year's training required for general nurses, passing the prescribed examination and sound health and good character.

Transport (No. 2). An amending Act; relates to the powers of the Transport Commission regarding the initiation and carrying on of new road transport services; constitutes a tribunal to hear appeals from decisions of the Commissioner regarding licences; provides for a General Manager of Railways.

Tuberculosis Act. Provides for the compulsory radiological examination of the lungs of persons over fourteen years of age, for the examination of persons suffering or suspected to be suffering from tuberculosis, and for the prevention of the spread of tuberculosis.

1950.—*Builders' Loans.* Authorizes the making of loans to builders under contract to the State to defray the costs of building materials, equipment, etc., and for payment of wages, the sums to be borrowed for these purposes not to exceed £10,000 in all.

Coal Mining Industry Long Service Leave. Constitutes a Coal Mining Industry Long Service Leave Trust Fund; provides for payments to employers in the coal mining industry of amounts paid by them to employees in respect of long service leave accrued under certain awards. (*See* Commonwealth Act—States Grants (Coal Mining Industry Long Service Leave) *also* Acts of other States.)

Grain Reserve. Provides for the establishment of the Tasmanian Grain Elevators organization for the purposes of acquiring and storing grain for sale in time of scarcity.

Landlord and Tenant (No. 3). Amends the Principal Act; provides for increases of fixed rent in certain cases, the determination of rents by the Controller of his own motion, the determination of the fair rent of prescribed premises which are sub-let, etc.

Land Valuation. Consolidates and amends the law relating to the valuation of land.

Rural Fires. Makes provision for the prevention and control of rural fires; constitutes a Rural Fires Board; repeals certain Acts relating to bush fires.

State Employees (Long-Service Leave). Amends the law relating to the granting of long-service leave, and for the payment of certain allowances, to employees of the State; repeals the State Employees (Long-Service Leave) Act 1947.

Stock Medicines, Fertilizers and Pesticides. Consolidates and amends the law relating to the regulation and control of the sale of stock medicines, fertilizers and pesticides.

Straits Islands Abattoirs. Makes provision for the establishment, operation and maintenance, on King Island and Flinders Island, of abattoirs and saleyards and premises for the treatment and storage of meat.

Tuberculosis (Campaign Arrangements). Gives effect to certain arrangements with the Commonwealth for a campaign against tuberculosis; amends the Tuberculosis Act 1949. (Corresponding Commonwealth Act was assented to in November, 1948. *See also* Acts of other States.)

Vermin Destruction. Makes better provision for the destruction of rabbits and other vermin; repeals the Rabbits Destruction Act 1889; amends the Local Government Act 1906.

War Service Land Settlement. Provides for the settlement on the land of persons returned from war service; validates certain acquisitions of land and other transactions; repeals the Commonwealth and State War Service Land Settlement Agreement Act 1945 and amending Acts.

§ 5. Commonwealth Government Departments.

Official Year Book No. 37 contains, on pp. 76–86, a list of the Commonwealth Government Departments as at 31st March, 1947, showing details of the matters dealt with by each Department, and the Acts administered by the Minister of each Department.

Since that date there have been several important changes in Departmental structure. In April, 1948, resulting from the redistribution of functions of the Department of Munitions and the Department of Supply and Shipping, the Department of Supply and Development and the Department of Shipping and Fuel were created. The functions of the Department of Munitions (including Aircraft Production) and the supply function of the Department of Supply and Shipping were merged in the reconstituted Department of Supply and Development, and the Department of Shipping and Fuel was formed out of the remaining functions of the Department of Supply and Shipping.

Early in 1950 further departmental changes in structure resulted in the abolition of five Departments and the creation of three new Departments. The Departments abolished were Information, Post-war Reconstruction, Shipping and Fuel, Supply and Development, and Transport. Those created were :—Fuel, Shipping and Transport (to consolidate the functions of the Department of Transport and the Department of Shipping and Fuel) ; Supply (a change in name only from the previous Supply and Development) ; National Development (a new Department to carry out the Government's policy for national development). These structural changes involved the transfer between Departments of certain functions. The more important of these were the transfer of the residual functions of the abolished Department of Information to the Department of the Interior, except for short-wave radio services which were transferred to the Australian Broadcasting Commission, and radio monitoring, transferred to the Department of External Affairs ; the distribution of functions of the former Department of Post-war Reconstruction to the Department of the Interior (War Service Land Settlement Division), to the Prime Minister's (Office of Education and Division of Economic Policy), to Repatriation (Re-establishment Division), to Social Services (Rehabilitation Branch), and to National Development (Division of Industrial Development and Regional Planning Division) ; and the transfer of the functions of the former Department of Shipping and Fuel and the Department of Transport to the Department of Fuel, Shipping and Transport, except for the Stevedoring Industry Board and the Maritime Industry Commission which were transferred to the Department of Labour and National Service. Other changes were the transfers of the Australian Capital Territory Police from the Attorney-General's Department to the Department of the Interior, the Canberra Town Planning Section from Works and Housing to the Interior, the control of the Commonwealth Railways from the Interior to Fuel, Shipping and Transport, the Bureau of Mineral Resources from Supply and Development to National Development, the Housing Division from Works and Housing to National Development, inspection and research under the Commonwealth Conciliation and Arbitration Act from the Attorney-General's to Labour and National Service, long-service leave in the coal-mining industry from the Treasury to Labour and National Service, and the Army Inspection Staff and the Development and Proving Establishment from the Army to Supply.

In May, 1951 the Department of Defence Production was created, and the munitions function of the Department of Supply was transferred to it. The fuel function of the Department of Fuel, Shipping and Transport was transferred to National Development, and shipbuilding was transferred from Supply to the re-named Shipping and Transport. The Department of External Territories, now entitled the Department of Territories, acquired from the Interior the administration of the Northern Territory and of Ashmore and Cartier Islands. Earlier in the year (January) the War Service Homes Division was transferred from the Department of Works and Housing to the Department of Social Services.

Apart from the structural changes and transfers of functions described above, there are several Departments, which, in the interval between 1947 and 1951, have developed to cope with changing circumstances affecting the particular Department. The Department of Immigration and the Department of Social Services are two whose organizations were thus altered.

For a list of the present Departments and the names of their Ministers *see* page 88.

§ 6. Cost of Parliamentary Government.

The following statement shows the cost of parliamentary government in the Commonwealth and in each State, as well as the cost per head of population, for the year ended 30th June, 1950. In order to avoid incorrect conclusions as to the cost of the Governor-General's or Governor's establishment, it may be pointed out that a very large part of the expenditure (with the exception of the item "Governor's salary") under the head of Governor-General or Governor represents official services entirely outside the Governor's personal interest, and carried out at the request of the Government.

COST OF PARLIAMENTARY GOVERNMENT, 1949–50.

(£.)

Particulars.	C'wlth.	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	Total.
1. *Governor-General or Governor*—								
Governor's salary	10,000	5,000	5,968	3,500	5,000	4,000	3,000	36,468
Other salaries	3,337	11,808	2,671	5,691	3,039	1,387	2,812	30,805
Other expenses, including maintenance of house and grounds	*a*35,321	10,088	65,277	15,963	4,099	4,826	9,553	145,127
Total	48,658	26,956	73,916	25,154	12,138	10,213	15,365	212,400
2. *Ministry*—								
Salaries of Ministers ..	29,150	37,784	22,652	25,500	10,750	10,250	15,450	151,536
Travelling expenses ..	5,899	(*b*)	(*b*)	..	(*b*)	10,082	2,931	18,912
Other	92	1,527	(*b*)	..	(*b*)	257	4,483	6,359
Total	35,141	39,311	22,652	25,500	10,750	20,589	22,864	176,807
3. *Parliament*—								
A. *Upper House :*								
President and Chairman of Committees	2,500	2,700	(*c*)3,002	..	1,350	2,570	(*d*) 925	13,047
Allowance to members ..	74,429	16,377	24,455	..	15,925	27,703	17,400	176,289
Railway passes(*e*)	5,760	12,805	(*f*)	..	1,404	4,207	1,380	25,556
Other travelling expenses ..	(*g*)4,421	..	..	..	..	..	..	4,421
Postage for members ..	4,482	(*f*)	593	..	155	507	..	5,737
B. *Lower House :*								
Speaker and Chairman of Committees	2,500	3,616	(*h*)3,175	3,288	2,450	2,487	605	18,121
Allowance to members ..	151,970	98,449	64,563	53,140	30,834	47,275	20,319	466,550
Railway passes (*e*).. ..	12,000	22,204	(*i*)9,000	11,671	2,710	7,111	2,180	66,876
Other travelling expenses ..	(*g*)9,050	1,483	..	3,729	..	..	..	14,262
Postage for members ..	8,300	(*i*)3,342	1,982	2,547	511	822	..	17,504
C. *Both Houses :*								
Government contribution to Members' Superannuation Fund	12,290	944	..	5,898	6,191	..	..	25,323
Printing—								
Hansard	31,235	7,640	12,429	6,770	4,419	6,488	..	68,981
Other	18,365	11,758	7,914	3,224	11,691	2,683	5,510	61,145
Reporting Staff—								
Salaries	20,851	12,820	10,267	4,608	10,190	11,035	..	69,771
Contingencies	1,242	232	174	..	1,172	194	..	3,014
Library—								
Salaries	18,726	6,788	4,149	3,096	1,819	100	..	34,678
Contingencies	9,161	1,961	1,100	1,530	805	280	212	15,049
Salaries of other officers ..	122,564	52,953	21,688	11,536	13,811	15,696	9,431	247,679
Other	*j*73,240	2,124	3,340	6,535	8,736	3,691	347	98,013
D. *Miscellaneous :*								
Fuel, light, heat, power, and water	1,237	1,468	2,564	331	2,857	137	860	54,329
Posts, telegraphs, telephones	9,438	5,643	3,303	2,186	1,366	524		
Furniture, stores, and stationery	9,667	4,509		1,459	5,882	889		
Other	*k*244,629	9,426	479	5,250	1,486	1,099	2,187	264,556
Total ..	848,057	279,242	174,177	126,798	125,764	135,498	61,365	1,750,901
4. *Electoral*—								
Salaries	189,072	4,307	2,265	6,475	13,027	12,641	(*l*)	227,787
Cost of elections, contingencies, etc.	275,922	75,785	61,696	61,111	12,496	34,068	11,961	533,039
Total	464,994	80,092	63,961	67,586	25,523	46,709	11,961	760,826
5. *Royal Commissions, Select Committees, etc.*	21,682	2,354	26,681	3,136	65	602	1,060	55,580
GRAND TOTAL ..	1,418,532	427,955	361,387	248,174	174,240	213,611	112,615	2,956,514
Cost per head of population ..	3s. 6d.	2s. 8d.	3s. 4d.	4s. 3d.	5s. 1d.	7s. 10d.	8s. 1d.	7s. 4d.

(*a*) Includes interest and sinking funds on loans, £5,000. (*b*) Not available separately. (*c*) Includes unofficial Leader. (*d*) Includes Government Leader. (*e*) Actual amounts paid to the respective Railway Departments, except in New South Wales and Western Australia, where the amounts shown represent the value of railway passes as supplied by the Railway Departments. (*f*) Included with Lower House. (*g*) While in Canberra. *See also* (*j*). (*h*) Includes Leader of the Opposition and Leader of the Third Party. (*i*) Both Houses. (*j*) Conveyance of members of Parliament and others not elsewhere included. (*k*) Includes interest and sinking fund, Parliament House, Canberra, £11,393, maintenance of Ministers' and members' rooms, £26,517, and additions, new works, buildings, etc., £149,141. (*l*) Duties performed by Chief Secretary's Department.

During 1948–49 the amounts expended for all Governments under the major headings were :—Governor-General or Governor, £217,245 ; Ministry, £170,493 ; Parliament, £1,492,641 ; Electoral, £279,085.

Figures for total cost and cost per head during each of the years 1945–46 to 1949–50 in comparison with 1938–39 are shown in the next table.

COST OF PARLIAMENTARY GOVERNMENT.

Year.	C'wealth.	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	Total.
				TOTAL. (£.)				
1938–39 ..	516,455	232,709	114,497	106,942	97,383	113,793	49,270	1,231,049
1945–46 ..	607,983	240,392	179,733	131,449	102,940	120,396	68,663	1,451,556
1946–47 ..	800,542	346,970	145,532	171,160	114,360	143,957	77,970	1,800,791
1947–48 ..	905,476	335,006	192,063	158,258	123,412	173,073	71,956	1,959,244
1948–49 ..	903,853	367,383	266,559	201,873	145,698	181,227	113,643	2,180,236
1949–50 ..	1,418,532	427,955	361,387	248,174	174,240	213,611	112,615	2,956,514
				PER HEAD OF POPULATION. (*s. d.*)				
1938–39 ..	1 6	1 8	1 3	2 1	3 3	4 10	4 2	3 7
1945–46 ..	1 8	1 8	1 9	2 5	3 3	4 11	5 6	3 11
1946–47 ..	2 2	2 4	1 5	3 2	3 7	5 9	6 2	4 9
1947–48 ..	2 4	2 3	1 10	2 10	3 9	6 10	5 6	5 2
1948–49 ..	2 4	2 5	2 6	3 7	4 5	6 11	8 6	5 7
1949–50 ..	3 6	2 8	3 4	4 3	5 1	7 10	8 1	7 4

§ 7. Government Employees.

1. **Australia, 1939 to 1950.**—The following table shows at June in each of the years 1946 to 1950, in comparison with 1939, the number of civilian employees of Commonwealth, State, Semi-Governmental and Local Government authorities. These include all employees of Governmental authorities on services such as railways, tramways, banks, post office, air transport, education, broadcasting, police, public works, factories and munitions establishments, migrant hostels, etc., as well as administrative employees within Australia.

GOVERNMENT EMPLOYEES(*a*) : AUSTRALIA.

June—	Commonwealth.			State and Semi-Governmental.			Local Government.			Total.		
	M.	F.	Persons.	M.	F.	Persons.	M.	F.	Persons.	M.	F.	Persons.
1939(*b*) ..	56,099	11,764	67,863	235,066	40,586	275,652	58,637	2,887	61,524	349,802	55,237	405,039
1946 ..	108,756	40,967	149,723	276,909	49,396	326,305	49,381	3,606	52,987	435,046	93,969	529,015
1947 ..	120,287	38,187	158,474	296,982	50,121	347,103	54,783	3,778	58,561	472,052	92,086	564,138
1948 ..	130,420	38,375	168,795	306,835	52,563	359,398	56,808	3,946	60,754	494,063	94,884	588,947
1949 ..	142,019	40,197	182,216	321,992	55,718	377,710	58,703	4,277	62,980	522,714	100,192	622,906
1950 ..	156,332	44,970	201,302	337,196	58,146	395,342	59,988	4,453	64,441	553,516	107,569	661,085

(*a*) *See* explanation above. (*b*) July.

2. Commonwealth and States, etc., June, 1949 and 1950.—The number of employees of Commonwealth, State, Semi-Governmental and Local Government authorities in each State as at June, 1949 and 1950, are shown in the following table :—

GOVERNMENT EMPLOYEES(a), JUNE, 1949 AND 1950.

Employed by—	1949.			1950.		
	Males.	Females.	Persons.	Males.	Females.	Persons.
Commonwealth ..	142,019	40,197	182,216	156,332	44,970	201,302
New South Wales ..	147,775	21,859	169,634	149,107	22,801	171,908
Victoria	93,270	17,867	111,137	100,492	18,740	119,232
Queensland	62,004	6,663	68,667	64,615	6,811	71,426
South Australia ..	33,710	6,501	40,211	36,060	6,767	42,827
Western Australia ..	30,658	4,521	35,179	32,774	4,829	37,603
Tasmania	13,278	2,584	15,862	14,136	2,651	16,787
Total ..	522,714	100,192	622,906	553,516	107,569	661,085

(a) *See* explanation on p. 103.

CHAPTER IV.

LAND TENURE AND SETTLEMENT.

§ 1. Introduction.

1. **General.**—For descriptions of the land tenure systems of the several States and the internal territories *see* Official Year Book No. 4 (pp. 235–333) and subsequent issues, in particular No. 22 (pp. 133–195). A conspectus of land legislation in force has appeared in issues up to and including No. 38. The present issue contains statistics of the areas held, etc., under the various tenures, of war service land settlement, advances to settlers, etc.

2. **State, etc. Land Legislation.**—The land legislation in force in the several States may be classified broadly under five major types of land enactments, i.e., Crown Lands Acts, Closer Settlement Acts, Mining Acts, Returned Service Personnel Settlement Acts, and Advances to Settlers Acts ; but in one or two States certain land legislation is not classified within these broad groupings, e.g., in Queensland Resumption Acts relating to alienated land, and in South Australia the Eyre Peninsula Land Purchase and the Agricultural Graduates Settlement Acts. Within the groupings there is, of course, a wide variety of individual acts, even for a particular State (*see* Official Year Book No. 38, pp. 111–113, and earlier issues.

In the Northern Territory of Australia the legislation relating to Crown Lands is embodied in the Crown Lands Ordinance 1931–1950, the Darwin Town Area Leases Ordinance 1947, the Darwin Short Term Leases Ordinance 1946 and the Church Lands Ordinance 1947 ; that relating to mining in the Mining Ordinance 1939–1947, the Mining (Royalty Suspension) Ordinance 1943, the Gold Dredging Act 1899 of South Australia, the Mineral Oil and Coal Ordinance 1922–1923, the Mining Development Ordinance 1939–1940, and the Mines Regulation Ordinance 1939 ; and that relating to advances to settlers in the Encouragement of Primary Production Ordinance 1938.

In the Australian Capital Territory the Ordinances relating to Crown lands are the Leases Ordinance 1918–1937, the City Area Leases Ordinance 1936–1947, the Church Lands Leases Ordinance 1924–1932, and the Leases (Special Purposes) Ordinance 1925–1943.

3. **Administration and Classification of Crown Lands.**—In each of the States there is a Lands Department under the direction of a Minister who is charged generally with the administration of the Acts relating to the alienation, occupation and management of Crown lands. The administrative functions of most of the Lands Departments are to some extent decentralized by the division of the States into what are usually termed Land Districts, in each of which there is a Lands Office, which deals with applications for selections and other matters generally appertaining to the administration of the Acts within the particular district. In some of the States there is a local Land Board or a Commissioner for each district or group of districts. In the Northern Territory the Administrator, under the control of the Minister for the Interior, is charged with the general administration of the Lands Ordinance and of Crown lands in the Northern Territory. In the Australian Capital Territory the administration of the Leases Ordinances is in the hands of the Department of the Interior.

Crown lands are generally classified according to their situation, the suitability of the soil for particular purposes, and the prevailing climatic and other conditions. The modes of tenure under the Acts, therefore, as well as the amount of purchase-money or rent, and the conditions as to improvements and residence, vary considerably. The administration of special Acts relating to Crown lands is in some cases in the hands of a Board under the general supervision of the Minister.

In each of the States there is also a Mines Department which is empowered under the several Acts relating to mining to grant leases and licences of Crown lands for mining and allied purposes. In the Northern Territory there are several ordinances relative to mining.

4. **Classification of Tenures.**—As with land legislation, land tenures may be classified under broad headings; these indicate the nature of the tenure and comprise :—Free Grants and Reservations, Unconditional Purchases of Freehold, Conditional Purchases of Freehold, Leases and Licences under Land Acts, Closer Settlement, Leases and Licences under Mining Acts, and Settlement of Returned Service Personnel. For details of the various particular forms of land tenure within these seven groups *see* Official Year Book No. 38, pp. 114–116, and earlier issues.

In the Northern Territory, leases are granted in perpetuity, except for pastoral, miscellaneous, short term and Darwin Town Area leases which are restricted to periods of not more than 42, 21, 5 and 99 years respectively. The Crown Lands Ordinance provides also for the grant in fee simple of town lands and agricultural lands, and for the issue of grazing, occupation and miscellaneous licences. The mining leases and holdings are, generally speaking, similar to those of the States. In the Australian Capital Territory leases only are issued.

The following sections contain figures showing the extent of the different tenures in the several States and Territories, together with some general descriptive matter

§ 2. Free Grants and Reservations.

1. **New South Wales.**—(i) *Free Grants.* Crown lands may, by notification in the *Gazette*, be dedicated for public purposes and be granted therefor in fee simple. Such lands may be placed under the care and management of trustees, not less than three or more than seven in number, appointed by the Minister.

(ii) *Reservations.* Temporary reservations of Crown lands from sale or lease may be made by the Minister.

(iii) *Areas Granted and Reserved.* During 1948–49 and 1949–50, 1,666 and 4,148 acres respectively were permanently reserved or dedicated for miscellaneous recreation reserves and similar purposes in 74 and 75 localities respectively. The areas reserved at 30th June, 1949 and 1950, respectively, were as follows :—For travelling stock, 5,337,180 and 5,342,180 acres; pending classification and survey, 4,349,398 and 4,260,592 acres; forest reserves, 2,083,595 and 2,315,542 acres; water and camping reserves, 829,961 and 829,181 acres; mining reserves, 1,220,876 and 1,218,314 acres; for recreation and parks, 422,175 and 424,746 acres; other reserves, 4,042,277 and 4,194,608 acres; totals, 18,285,462 and 18,585,163 acres.

2. **Victoria.**—(i) *Free Grants.* The Governor may grant, convey or otherwise dispose of Crown lands for public purposes.

(ii) *Reservations.* The Governor may temporarily or permanently reserve from sale, lease or licence any Crown lands required for public purposes.

(iii) *Areas Granted and Reserved.* During 1949 and 1950, 165 and 10 acres respectively were granted without purchase. The areas both temporarily and permanently reserved at the end of 1949 and 1950, respectively, were as follows :—For roads, 1,794,218 acres each year; water reserves, 318,608 and 318,631 acres; for agricultural colleges, etc., 8,434 acres each year; forest and timber reserves, 5,119,593 and 5,139,794 acres; reserves in the mallee, 410,000 acres each year; other reserves, 548,795 and 553,259 acres; totals, 8,299,648 and 8,224,336 acres.

3. **Queensland.**—(i) *Free Grants.* The Governor may grant in trust any Crown land which is or may be required for public purposes. Under the Irrigation Act, land to be used for the purpose of any undertaking under that Act may be vested in fee simple in the Irrigation Commission.

(ii) *Reservations.* The Governor may reserve from sale or lease, either temporarily or permanently, any Crown land which is or may be required for public purposes. Reserved lands may be placed under the control of trustees who are empowered to lease them with the approval of the Minister for not more than 21 years.

Under the State Forests and National Parks Acts, the Governor may permanently reserve any Crown lands and declare them to be a State Forest or a National Park.

(iii) *Areas Granted and Reserved.* During 1949 and 1950 respectively the areas granted in fee simple without payment were nil, the area set apart as reserves 241,407 and 2,368,498 acres, and reserves cancelled 158,312 and 988,019 acres. The areas reserved, including roads, at the end of 1949 and 1950, respectively, were as follows:—Timber reserves, 3,123,760 and 3,079,344 acres; for State forests and national parks, 4,819,363 and 4,967,171 acres; aboriginal reserves, 6,525,659 and 7,805,659 acres; for streets, surveyed roads and stock routes, 3,497,591 and 3,544,865 acres; general reserves, 5,651,007 and 5,648,094 acres; totals, 23,617,380 and 25,045,133 acres.

4. **South Australia.**—(i) *Free Grants.* The Governor may dedicate Crown lands for any public purpose and grant the fee simple of such lands, with the exception of foreshores and land for quays, wharves or landing-places, which are inalienable in fee-simple from the Crown.

(ii) *Reservations.* The Governor may reserve Crown lands for the use and benefit of aborigines, military defence, forest reserves, railway stations, park lands or any other purpose that he may think fit.

(iii) *Areas Granted and Reserved.* During 1948–49 and 1949–50 respectively, free grants were issued for areas of 398 and 69 acres, and reserves comprising 1,767 and 966,043 acres were proclaimed. At 30th June, 1949 and 1950, the total area of surveyed roads, railways and other reserves was 20,274,340 and 21,240,383 acres respectively, including 17,321,600 acres in 1949 and 18,272,000 in 1950 set apart as aboriginal reserves.

5. **Western Australia.**—(i) *Free Grants.* The Governor may dispose of, in such manner as for the public interest may seem best, any lands vested in the Crown for public purposes, and may grant the fee simple of any reserve to secure the use thereof for the purpose for which such reserve was made.

(ii) *Reservations.* The Governor may reserve any lands vested in the Crown for public purposes. Areas not immediately required may be leased by the Governor for periods up to 10 years. Reserves may be placed under the control of a local authority or trustees, with power to lease them for a period not exceeding 21 years, or may be leased for 99 years. Temporary reserves may also be proclaimed.

(iii) *Areas Granted or Reserved.* During the years ended 30th June, 1949 and 1950 approximately 14,254 and 1,363,740 acres respectively were reserved for various purposes. At 30th June, 1950 (figures at 30th June, 1949, in parentheses), the total area reserved was 51,808,817 (50,427,599) acres, comprising State forests, 3,410,406 (3,402,963) acres, timber reserves 1,799,658 (1,789,623) acres and other reserves 46,598,753 (45,235,013) acres.

6. **Tasmania.**—(i) *Free Grants.* No mention is made in the Crown Lands Act respecting free grants of land, and it is expressly stated that no lands may be disposed of as sites for religious purposes except by way of sale under the Act. Under the Returned Soldiers' Settlement Act 1916, returned soldiers who applied prior to 31st March, 1922 were eligible to receive free grants of Crown land not exceeding £100 each in value, but these grants were conditional on the land being adequately improved.

(ii) *Reservations.* The Governor in Council may except from sale or lease, and reserve to His Majesty any Crown land for public purposes, and vest for such term as he thinks fit any land so reserved in any person or corporate body. Any breach or non-fulfilment of the conditions upon which such land is reserved renders it liable to forfeiture. A school allotment, not exceeding 5 acres in area, may also be reserved.

(iii) *Areas Granted or Reserved.* The total area reserved at 30th June, 1950 was 4,016,430 acres, excluding 21,769 acres of land occupied by Commonwealth and State Departments.

7. **Northern Territory.**—(i) *Reservations.* The Governor-General may resume for public purposes any Crown lands not subject to any right of, or contract for, purchase, and may reserve, for the purpose for which they are resumed, the whole or any portion of the lands so resumed.

(ii) *Areas Reserved.* The total area of reserves at 30th June, 1949 and 1950 respectively was 71,020 and 71,023 square miles, comprising aboriginal native, 69,015 square miles at each date ; and other reserves, 2,005 and 2,008 square miles.

8. **Summary.**—The following table shows the total areas reserved in each State, and the grand totals, for the years 1946 to 1950 :—

AREAS RESERVED.

('000 Acres.)

Year.	N.S.W. (*a*)	Victoria. (*b*)	Q'land. (*b*)	S. Aust. (*a*)	W. Aust. (*a*)	Tasmania. (*b*)	Nor. Terr. (*a*)	Total.
1946 ..	17,872	8,171	22,460	20,256	54,816	2,889	44,374	170,838
1947 ..	18,022	8,179	23,017	20,263	50,329	2,938	44,374	167,122
1948 ..	18,023	8,179	23,516	20,273	50,410	3,969	45,452	169.822
1949 ..	18,285	8,300	23,617	20,274	50,428	(*c*)4,016	45,453	170,373
1950 ..	18,585	8,224	25,045	21,240	51,809	(*a*)4,016	45,455	174,374

(*a*) At 30th June. (*b*) At 31st December. (*c*) At 30th June, 1950.

§ 3. Unconditional Purchases of Freehold.

1. **New South Wales.**—(i) *Auction Purchases.* Crown lands, not exceeding in the aggregate 200,000 acres in any one year, may be sold by public auction in areas not exceeding half-an-acre for town lands, 20 acres for suburban lands, and 640 acres for country lands, at the minimum upset price of £8, £2 10s., and 15s. per acre respectively. At least 10 per cent. of the purchase-money must be paid at the time of sale, and the balance within three months, or the Minister may allow the payment of such balance to be deferred for a period not exceeding ten years, 4 per cent. interest being charged. Town blocks in irrigation areas may also be sold by auction.

(ii) *After-Auction Purchases.* In certain cases, land offered at auction and not sold may be purchased at the upset price. A deposit in accordance with the terms and conditions under which the land was previously offered must be lodged, and, if the application be approved by the Minister, the balance of purchase money is payable as required by the specified terms and conditions.

(iii) *Special Purchases.* Under certain circumstances, land may be sold in fee simple, the purchaser paying the cost of survey and of reports thereon, in addition to the purchase-money. The minimum upset price per acre is the same as in the case of land sold by auction. Areas not exceeding 5 acres in extent may be sold to recognized religious bodies and public authorities at prices determined by the local land board.

(iv) *Improvement Purchases.* The owner of improvements in land, in authorized occupation by residence under any Mining or Western Lands Act of land within a gold-field or mineral field, may purchase such land without competition at a price determined by the local Land Board, but at not less than £8 per acre for town lands or £2 10s. per acre for other lands. The area must not exceed ¼ acre within a town or village, or 2 acres elsewhere, and no person may purchase more than one such area within 3 miles of a similar prior purchase by him.

(v) *Areas Sold.* During the year ended 30th June, 1950 (figures for year ended 30th June, 1949 in parentheses) the total area sold was 168 (221) acres, of which 3 (1) acres were sold by auction and 32 (51) acres as after-auction purchases, while 35 (32) acres were sold as improvement purchases and 97 (137) acres as special purchases. The amount realized for the sale of the whole area was £19,444 (£10,147).

2. **Victoria.**—(i) *General.* Lands, not exceeding 100,000 acres in any one year, specially classed for sale by auction, may be sold by auction in fee simple at an upset price not less than £1 per acre. The purchaser must pay the survey fee at the time of the sale, together with a deposit of 12½ per cent. of the whole price ; the residue is payable in equal half-yearly instalments with interest. Any unsold land in a city, town or borough area, areas specially classed for sale, isolated pieces of land not exceeding 150 acres in area, and sites for churches or charitable purposes, if not more than 3 acres in extent, may be sold by auction on the same terms. Swamp or reclaimed lands may also be sold by auction, subject to the condition that the owner keeps open all drains, etc., thereon.

(ii) *Areas sold at Auction and by Special Sales.* During 1949 and 1950 totals of 1,233 and 1,278 acres respectively were disposed of under this tenure, 889 and 1,091 acres being country lands and 344 and 187 acres town and suburban lands.

3. **Queensland.**—(i) *General.* From 1917 to 1929 the law precluded land being made available for any class of selection which gave the selector the right to acquire the freehold title. Amending legislation giving power to make land available under freehold tenures was passed in 1929 but this provision was repealed by the Act of 1932.

(ii) *Areas Sold, etc.* During 1947 unconditional selections made freehold totalled 125 acres. No unconditional selections have since (to 1950) been made freehold.

4. **South Australia.**—(i) *Sales by Auction.* The following lands may be sold by auction for cash :—(*a*) special blocks ; (*b*) Crown lands which have been offered for lease and not taken up within two years ; (*c*) town lands ; and (*d*) suburban lands which the Governor excepts from the operations of the Land Board. A purchaser must pay 20 per cent. of the purchase money in cash, and the balance within one month or within such extended time as the Commissioner of Crown Lands may allow. Town lands may be sold subject to the condition that they cannot be transferred or mortgaged within six years without the consent of the Commissioner. If the Commissioner of Crown Lands so determines, town lands may also be offered at auction on terms that the buyer may at his option purchase the lands for cash or on agreement for sale and purchase.

(ii) *Areas Sold, etc.* During the years ended 30th June, 1949 and 1950 the area of town lands and special blocks sold by auction was 18 and 47 acres respectively. In addition, 49,289 and 79,455 acres respectively were sold at fixed prices, and purchases of 75,263 and 100,051 acres respectively on credit were completed, making a total of 124,552 and 179,553 acres respectively.

5. **Western Australia.**—(i) *Sales by Auction.* Town, suburban and village lands must be sold by auction after being surveyed into lots and notified in the *Gazette.* Ten per cent. of the purchase-money must be paid in cash together with the value of any improvements, and the balance in four equal quarterly instalments. Suburban land must be fenced within two years, and no Crown grant may be issued until the land is fenced.

(ii) *Areas Sold.* During the years ended 30th June, 1949 and 1950 the area of town and suburban allotments sold by auction was 1,230 and 994 acres in 562 and 512 allotments respectively.

6. **Tasmania.**—(i) *Sales by Auction.* Town lands may be sold by auction.

(ii) *After-auction Sales.* Town lands, not within 5 miles of any city, which, after having been offered at auction, have not been sold, may be sold at the upset prices by private contract.

(iii) *Sales of Land in Mining Towns.* Any person being the holder of a residence licence or business licence who shall be in lawful occupation of any residence area or business area, and who shall be the owner of buildings and permanent improvements upon such land of a value equal to or greater than the upset price of such area, shall be entitled to purchase such area at the upset price at any time prior to the day on which such area is to be offered for sale as advertised. The upset price for such area shall not be less than £10, excluding the value of improvements, cost of survey, and of grant deed. The area which may be so purchased may, with the consent of the Commissioner, exceed one-quarter of an acre, but shall not in any case exceed one-half of an acre.

§ 4. Conditional Purchases of Freehold.

1. **General.**—The various methods of obtaining Crown lands by conditional purchase in the several States are given in some detail in preceding issues of the Official Year Book (*see* No. 22, pp. 141–9).

2. **New South Wales.**—At 30th June, 1949 and 1950 the total number of incomplete conditional purchases in existence was 39,350 and 39,094 respectively, covering an area of 12,758,159 and 12,599,238 acres respectively. During 1948–49 and 1949–50, respectively, 28 and 46 applications were received for conditional purchases; 15 and 20 were confirmed with areas of 2,095 and 2,760 acres respectively; deeds were issued during the year for 340,300 and 382,544 acres; at the end of the year deeds had been issued for 32,571,448 and 32,954,036 acres. These figures exclude conversions from other tenures—1948–49, 426 comprising 60,882 acres; 1949–50, 758 comprising 149,647 acres.

3. **Victoria.**—Excluding selections in the Mallee country, the total area purchased conditionally in 1949 and 1950 was 6,133 and 11,457 acres respectively, all with residence. The number of selectors was 34 and 60 respectively. There were no selections in the Mallee in 1949 and 1950.

In addition, final payments were made during 1949 and 1950 on conditional purchases comprising 45 and 100 acres of Mallee lands.

4. **Queensland.**—The following selections were made freehold during 1949 and 1950, respectively:—Agricultural farms 57,437 and 78,709 acres; prickly pear selections 213,322 and 271,555 acres; and prickly pear development selections 3,261 and 7,945 acres.

5. **South Australia.**—The land allotted under agreements to purchase during 1948–49 was 8,529 acres, comprising Eyre Peninsula railway lands 3,289 acres, closer settlement lands 2,911 acres, soldiers' acquired lands 150 acres, surplus lands 167 acres, Eyre Peninsula Land Purchase Act 4 acres and other Crown lands 2,006 acres. During 1949–50 6,873 acres were allotted under agreements to purchase, comprising Eyre Peninsula railway lands 30 acres, Murray Lands railway lands 4 acres, Pinaroo railway lands 82 acres, closer settlement lands 5,475 acres, homestead re-purchased lands 17 acres, surplus lands 58 acres, agricultural graduates lands 238 acres and other Crown lands 969 acres.

6. **Western Australia.**—During the year ended 30th June, 1950 (figures for the year ended 30th June, 1949 in parentheses) the number of holdings conditionally alienated was 841 (716), the total area involved being 822,467 (796,941) acres, comprising conditional purchases by deferred payments with residence 809,134 (786,604) acres and free homestead farms 13,333 (10,337) acres. Under the heading "deferred payments with residence" are included conditional purchases of grazing lands.

In addition, Crown grants were issued during 1949–50 (1948–49 in parentheses) for the following selections, the prescribed conditions having been complied with:—Free homestead farms 18,714 (33,342) acres and conditional purchases 237,000 (340,671) acres.

7. **Tasmania.**—During 1949–50 (figures for 1948–49 in parentheses) Crown grants were issued for 21,828 (19,149) acres. The total area sold conditionally was 3,378 (2,058) acres, comprising selections for purchase 2,909 (1,929) acres, and town and suburban allotments 469 (129) acres. The numbers of applications received and confirmed were 41 (34) and 273 (123) respectively.

§ 5. Leases and Licences under Land Acts.

1. **General.**—Information regarding the methods of obtaining leases and licences of Crown lands in the several States and Territories is given in preceding issues of the Official Year Book (*see* No. 22, pp. 149–63).

2. **New South Wales.**—The following table shows the areas held under various descriptions of leases and licences under the control of the Department of Lands, the Water Conservation and Irrigation Commission and the Western Lands Commission at the end of 1948–49 and 1949–50 :—

AREAS OCCUPIED UNDER LEASE OR LICENCE AT 30th JUNE : NEW SOUTH WALES.(a)

(Acres.)

Particulars.	1949.	1950.
Areas taken up under Crown Lands or Closer Settlement Acts.		
Occupation licences—ordinary	504,572	507,928
Occupation licences—preferential	232,384	224,469
Conditional leases	11,799,970	11,690,931
Conditional purchase leases	155,248	151,341
Settlement leases	2,765,654	2,758,641
Improvement leases	54,022	51,784
Annual leases	445,844	465,897
Scrub leases	41,856	39,336
Snow leases	665,421	634,581
Special leases	960,562	975,953
Inferior lands leases	19,733	19,733
Residential leases (on gold and mineral fields)	5,361	5,405
Church and school lands	6	3
Permissive occupancies (ordinary)	2,124,057	2,082,514
,, ,, (Closer Settlement Acts)	39,661	33,434
Prickly pear leases	147,568	147,507
Crown leases	7,256,608	7,223,374
Homestead farms	4,792,043	4,834,582
Homestead selections and grants	1,659,432	1,652,343
Closer settlement leases (Closer Settlement Acts)	1,232,844	1,639,480
Settlement purchase leases (Closer Settlement Acts)	1,010,745	1,029,508
Suburban holdings	52,932	52,618
Week-end leases	178	153
Group purchase leases (Closer Settlement Acts)	219,305	223,377
Leases of town lands	54	54
Returned soldiers' special holdings	13,887	13,858
Irrigation areas	227,866	220,766
Leases, Licences and Permissive Occupancies under Western Lands Act.		
Conditional leases	93,823	93,823
Perpetual leases	55,044,814	55,607,887
Other long-term leases	19,222,559	18,849,429
Permissive occupancies	2,812,963	2,316,605
Leases being issued—occupation licences	162,199	154,427
Preferential occupation licences	260,575	423,225
Total	114,024,746	114,124,966

(a) Excludes mining leases and permits; forest leases and occupation permits; and leases outside irrigation areas, controlled by the Water Conservation and Irrigation Commission—52,856 acres in 1949 and 91,188 acres in 1950.

3. **Victoria.**—The area of Crown lands occupied under leases and licences in each of the years 1949 and 1950 is shown in the following table :—

AREAS OCCUPIED UNDER LEASE OR LICENCE : VICTORIA.

(Acres.)

Particulars.	1949.	1950.
Grazing licences—Other than Mallee	5,618,336	5,587,461
Mallee lands	3,133,904	2,967,949
Auriferous lands (licences)	15,890	15,890
Perpetual leases—Other than Mallee	16,807	17,819
Mallee lands	61,043	61,043
Swamp lands (leases)	4,020	4,020
Agricultural college lands	45,586	53,957
Total	8,895,586	8,708,139

4. **Queensland.**—The total area occupied under lease or licence, excluding mining leases, at the end of 1949 and 1950 was as follows :—

AREAS OCCUPIED UNDER LEASE OR LICENCE AT 31st DECEMBER : QUEENSLAND.

(Acres.)

Particulars.	1949.	1950.
Pastoral leases	243,243,880	242,637,520
Occupation licences	18,531,360	20,257,200
Grazing selections and settlement farm leases	84,705,009	85,662,684
Special purpose leases—Crown land	497,786	520,738
Reserves	991,964	1,062,509
Perpetual lease selections and perpetual lease prickly pear selections	6,474,827	6,549,519
Auction perpetual leases, etc.	31,737	(a) 513,514
Forest grazing leases (of reserves)	1,792,360	1,736,580
Total	356,268,923	358,940,264

(a) Includes 481,157 acres held by Queensland-British Food Corporation, as perpetual country leases.

5. **South Australia.**—The total area including repurchased lands held under lease or licence, except mining lease and licence, at 30th June, 1949 and 1950, respectively, was 137,432,250 acres and 137,418,839 acres, of which pastoral leases, 115,629,814 acres in 1949 and 115,672,014 acres in 1950, constituted the major proportion.

6. **Western Australia.**—At 30th June, 1949 the total area held under lease or licence issued by the Lands Department amounted to 220,283,036 acres, of which 217,353,521 acres were under pastoral lease. Corresponding figures for 1950 were 222,489,077 acres and 219,200,060 acres.

7. **Tasmania.**—Crown lands leased at 31st December, 1948 for other than mining purposes amounted to 2,684,579 acres, of which 2,026,455 acres were leased for pastoral purposes. Corresponding figures as at 30th June, 1950 were 2,798,599 acres and 2,157,348 acres.

8. **Northern Territory.**—At 30th June, 1949 the total area held under lease, licence and permit was 158,437,388 acres, of which pastoral leases accounted for 114,370,560 acres and other leases, licences and mission stations 44,066,828 acres. At 30th June, 1950 the total area under lease, etc., was 162,560,640 acres, of which pastoral leases accounted for 122,815,360 acres and other leases, licences and mission stations 39,745,280 acres.

9. **Australian Capital Territory.**—The number of leases granted under the City Area Leases Ordinance 1936–1947 to 30th June, 1949 and 1950 (excluding leases surrendered and determined) was 799 and 918 respectively. The total area held under grazing, etc., lease and licence (including Jervis Bay area) amounted to 303,289 acres in 1949 and 330,657 acres in 1950.

Seventeen leases have been granted under the Church Lands and Special Purposes Ordinances for church and scholastic purposes. In addition, a lease in perpetuity has been granted under the Church of England Land Ordinance 1926 for church purposes.

10. **Summary.**—The following table shows particulars of the land held in each State under lease or licence for purposes other than mining and forestry, the total leased or licensed land in the Territories, and the grand totals, for the years 1946 to 1950:—

AREAS OCCUPIED UNDER LEASE OR LICENCE OTHER THAN MINING AND FORESTRY.

('000 Acres.)

Year.	N.S.W. (*a*)	Victoria. (*b*)	Q'land. (*b*)	S. Aust. (*a*)	W. Aust. (*a*)	Tas. (*b*)	N.T. (*a*) (*c*)	A.C.T. (*b*) (*c*) (*d*)	Total.
1946	112,545	10,124	354,325	134,234	209,104	2,741	159,205	329	982,607
1947	111,865	8,676	353,968	135,771	210,679	2,716	154,201	304	978,180
1948	112,943	8,997	354,518	136,809	214,570	2,685	157,596	305	988,423
1949	114,025	8,891	356,269	137,432	220,283	(*e*) 2,799	158,437	304	998,440
1950	114,125	8,708	358,940	137,419	222,489	(*a*) 2,799	162,561	331	1,007,372

(*a*) At 30th June. (*b*) At 31st December. (*c*) Leases and licences for all purposes. (*d*) Includes Jervis Bay area. (*e*) At 30th June, 1950.

§ 6. Leases and Licences under Mining Acts.

1. **General.**—Information regarding the various forms of leases and licences under Mining Acts in the several States and the Northern Territory is given in preceding issues of the Official Year Book (*see* No. 22, pp. 170–7).

2. **New South Wales.**—The following table shows particulars of operations on Crown lands for the years 1948–49 and 1949–50:—

AREAS TAKEN UP UNDER MINING ACTS: NEW SOUTH WALES.

(Acres.)

Particulars.	1948–49.		1949–50.	
	Areas Taken up during Year.	Total Areas Occupied at End of Year.	Areas Taken up during Year.	Total Areas Occupied at End of Year.
Gold-mining	1,345	5,057	1,114	4,762
Mining for other minerals ..	47,877	175,686	13,514	174,074
Authorities to prospect ..	1,257,393	5,485,486	1,074,176	268,690
Other purposes	1,130	8,220	256	8,252
Total	1,307,745	5,674,449	1,089,060	455,778

3. **Victoria.**—The following table shows particulars of the number of leases and licences granted during 1949 and 1950, and the area under occupation for mining purposes at the end of each year :—

AREAS TAKEN UP UNDER MINING ACTS : VICTORIA.

Particulars.	1949.		1950.	
	Leases and Licences Granted.	Total Areas Occupied at End of Year.	Leases and Licences Granted.	Total Areas Occupied at End of Year.
	No.	Acres.	No.	Acres.
Gold-mining leases	60	20,612	61	20,426
Petroleum prospecting licences ..	3	1,134,582	..	1,056,739
Coal leases	91	(a)13,377	78	(a)12,910
Other leases and licences ..		5,002		5,562
Total	154	1,173,573	139	1,095,637

(a) Includes State Coal Mine area 7,575 acres and State Electricity Commission area 2,800 acres.

The area covered by licences, etc., issued in 1949 was 329,936 acres, and in 1950 3,951 acres. The reduction was due to the fact that no new petroleum prospecting licences were applied for. The rent, fees, etc., were £8,810 and £7,315 in 1949 and 1950 respectively.

4. **Queensland.**—During 1949 and 1950, the number of miners' rights issued was 2,840 and 2,813 respectively, and of business licences 3 each year. The following table shows particulars of the areas of lands taken up under lease or licence and the total areas occupied for 1949 and 1950. In addition, an area estimated at 25,000 acres was held under miners' rights and dredging claims.

AREAS TAKEN UP UNDER MINING ACTS : QUEENSLAND.

(Acres.)

Particulars.	1949.		1950.	
	Areas Taken up during Year.	Total Areas Occupied at End of Year.	Areas Taken up during Year.	Total Areas Occupied at End of Year.
Gold-mining	451	3,585	466	3,588
Mining for other minerals	3,878	30,658	11,625	46,871
Miners' homestead leases	984	421,269	1,752	422,109
Petroleum-prospecting permits ..	8,500	482,740	320,000	794,240
Coal prospecting areas	2,154	4,074	204	204
Total	15,967	942,326	334,047	1,267,012

The area of land held under lease only at 31st December, 1949 and 1950 was 455,512 and 472,568 acres respectively.

5. **South Australia.**—The following table shows particulars of operations for 1948–49 and 1949–50 :—

AREAS TAKEN UP UNDER MINING ACTS : SOUTH AUSTRALIA.

(Acres.)

Particulars.	1948-49.		1949-50.	
	Areas Taken up during Year.	Total Areas Occupied at End of Year.	Areas Taken up during Year.	Total Areas Occupied at End of Year.
Gold-mining leases	471	1,308	10	920
Mineral and miscellaneous leases ..	594	70,334	3,036	72,820
Claims	4,450	12,456	1,705	11,031
Occupation licences..	1	32	..	32
Oil licences	..	35,968,000	640,000	36,576,000
Special mining leases	12,480	16,320	7,923	11,763
Total	17,996	36,068,450	652,674	36,672,566

6. **Western Australia.**—The following table shows particulars of operations for 1949 and 1950. The figures exclude holdings under miners' rights and mineral oil licences. Of the areas shown as taken up in 1950 (1949 in parentheses), the area under lease was 5,456 (3,610) acres for gold-mining, 6,869 (4,873) for mining for other minerals, 168 (473) for miners' homesteads, and 319 (54) for miscellaneous—a total of 12,812 (9,010) acres. The balance was taken up under licences.

AREAS TAKEN UP UNDER MINING ACTS : WESTERN AUSTRALIA.

(Acres.)

Particulars.	1949.		1950.	
	Areas Taken up during Year.	Total Areas Occupied at End of Year.	Areas Taken up during Year.	Total Areas Occupied at End of Year.
Gold-mining	16,091	37,681	15,140	37,868
Mining for other minerals	12,667	61,690	16,424	71,283
Other purposes	664	37,991	614	36,696
Total	29,422	137,362	32,178	145,847

7. **Tasmania.**—During 1950 (figures for 1949 in parentheses) the number of leases issued was 18 (25) of which 11 (19) were for tin-mining covering 731 (208) acres. The following table shows acreages for 1949 and 1950.

AREAS TAKEN UP UNDER MINING ACTS : TASMANIA.

(Acres.)

Particulars.	1949.		1950.	
	Leases Issued during Year.	Total Areas Occupied at End of Year.	Leases Issued during Year.	Total Areas Occupied at End of Year.
Gold-mining	5	479	20	500
Mining for other minerals	3,689	17,135	3,657	19,631
Licences to search for coal or oil ..	..	200	..	..
Mining for coal	60	5,754	518	6,272
Other purposes	178	4,533	10	4,059
Total	3,932	28,101	4,205	30,462

8. **Northern Territory.**—At 30th June, 1949 and 1950 the number and acreage of holdings under mining leases and tenements were as follows :—

MINING LEASES AND TENEMENTS : NORTHERN TERRITORY, 30th JUNE.

Particulars.	1949.		1950.	
	No.	Acres.	No.	Acres.
Gold-mining leases	269	4,502	292	5,039
Mineral leases	204	5,178	197	4,911
Gold claims	3	25	1	10
Gold reward claims	1	8	2	18
Mineral reward claims	1	60	1	60
Tin dredging claims	1	300	1	300
Gold dredging claims	3	205	1	83
Mineral prospecting areas	28	525	16	250
Gold prospecting areas	12	235	16	275
Business and residence areas	185	50	183	54
Residental leases	2	30	3	40
Miscellaneous	66	241	66	254
Total	775	11,359	779	11,294

9. **Summary.**—The following table shows the areas taken up, or for which leases and licences for mining purposes were issued during the year, and the total areas occupied, for the years 1946 to 1950 :—

AREAS TAKEN UP UNDER MINING ACTS.

(Acres.)

Year.	N.S.W. (a)	Victoria.	Q'land. (b)	S. Aust. (a) (b)	W. Aust. (c)	Tasmania. (b)	Total. (d)
AREAS TAKEN UP OR FOR WHICH LEASES AND LICENCES ISSUED DURING YEAR.							
1946 ..	51,797	3,155	15,589	4,591,044	27,554	1,702	4,690,841
1947 ..	5,164,407	17,278	140,948	31,417,688	34,006	2,742	36,777,069
1948 ..	767,641	596,903	13,999	37,877	41,971	941	1,459.332
1949 ..	1,307,745	329,936	15,967	17,996	29,422	3,932	1,704,998
1950 ..	1,089,060	3,951	334,047	652,674	32,178	4,205	2,116,115
TOTAL AREAS OCCUPIED AT END OF YEAR.							
1946 ..	2,417,462	645,858	858,811	4,661,737	130,393	24,080	8,738,341
1947 ..	241,257	563,652	991,698	36,049,318	126,032	25,700	37,997.657
1948 ..	1.334,002	989,641	944,969	36,077,751	130,073	22,681	39.409,117
1949 ..	5,674,449	1,173,573	942,326	36,068,450	137,362	28,101	44,024,261
1950 ..	455,778	1,095.637	1,267,012	36,672,566	145,847	30,462	39,667.302

(a) Year ended 30th June. (b) Excludes lands held under miners' rights only. (c) Excludes holdings under miners' rights and mineral oil licences. (d) Excludes Northern Territory.

§ 7. Closer Settlement.

1. **General.**—Particulars regarding the methods of acquisition and disposal of land for closer settlement in the several States are given in preceding issues of the Official Year Book (*see* No. 22, pp. 163–9) and considerable detail of the results of the operations of the several schemes has appeared in subsequent issues. In more recent years, however, the amalgamation, in some States, of closer settlement records with those of other authorities has made it impossible to obtain up-to-date figures for those States and for Australia as a whole, although aggregations of State totals as at the latest dates available have been published as rough approximations intended to convey some idea of the extent of the schemes throughout Australia. Particulars in this issue are restricted to a summary only of the position in each State at the latest dates available.

2. **New South Wales.**—Since the inception of closer settlement in 1905 to 30th June, 1950, 2,176 estates totalling 5,824,779 acres have been purchased by the Crown at a cost of £23,779,076 for purposes of closer settlement of civilians and returned service personnel. Particulars of the total areas acquired to 30th June, 1949 and 1950, respectively, are as follows :—Estates purchased, 2,083 and 2,176; farms allotted, 10,323 and 10,493; area, 5,576,318 and 5,824,779 acres; purchase price, £22,504,636 and £23,779,076.

Closer settlement is now being effected entirely under perpetual leasehold tenure (closer settlement leases).

3. **Victoria.**—The Closer Settlement Commission was abolished as from 31st December, 1938, and land settlement was placed under the control of the Department of Lands and Survey. On 31st March, 1939 all Closer Settlement and Discharged Soldiers' accounts were amalgamated, the settlers' accounts adjusted and the new debt made payable over an extended period. Particulars of the operations under the provisions of the Closer Settlement Acts to 30th June, 1938, the latest date for which separate details are available, show that 1,402,568 acres were acquired at a cost, including the value of Crown lands taken over, of £10,244,023, and that 8,722 allotments were made, farm allotments comprising 1,102,676 acres, workmen's homes allotments 790 acres, agricultural labourers' allotments 3,484 acres and town allotments 86,599 acres. The figures for area and cost of land acquired for closer settlement purposes include, in addition to 133,128 acres purchased for £1,246,722 and transferred subsequently to discharged soldiers, a total area of 512,757 acres costing £4,125,822 which was purchased originally for the settlement of discharged soldiers.

4. **Queensland.**—Separate records relating to the closer settlement of re-purchased land are no longer kept by the Land Administration Board, and the operations under this heading are now included with "Leases and Licences under Land Acts." The total area acquired to 31st December, 1934 was 970,778 acres, costing £2,292,881. At the same date the area allotted amounted to 915,690 acres distributed over 3,048 selections consisting of 2,155 agricultural farms, 257 unconditional selections, 544 perpetual lease selections, 9 prickly pear selections, 6 perpetual lease prickly pear selections and 77 settlement farm leases. An area of 13,038 acres was sold by auction.

5. **South Australia.**—The total area re-purchased for closer settlement at 30th June, 1950 was 931,274 acres at a cost of £2,843,060. Included in these figures are 51,872 acres purchased for £185,285 and afterwards set apart for returned service personnel, 3,214 acres reserved for forest and waterworks purposes, the purchase-money being £16,185, and also 26,563 acres of swamp and other lands, which were purchased for £111,580, in connexion with reclamation of swamp-lands on the River Murray. Of the total area, 825,690 acres in 1949 and 832,001 in 1950 were allotted to 2,830 persons.

6. **Western Australia.**—The total area acquired for closer settlement up to 30th June, 1950 was 2,052,784 acres, costing £4,010,503. Of this area, 20,972 acres have been set aside for roads, reserves, etc., leaving a balance of 2,031,812 acres available for selection. Particulars of operations under the Act for the year ended 30th June, 1950 (figures for year ended 30th June, 1949 in parentheses) are as follows:—Area selected during the year 382,278 (129,283) acres; number of farms, etc., allotted to date 2,010 (1,856); total area occupied to date 1,388,796 (996,518) acres; balance available for selection 643,016 (868,205) acres.

7. **Tasmania.**—Up to 30th June, 1950, 38 areas had been opened up for closer settlement, the total purchase-money paid by the Government being £370,785 and the total area acquired amounting to 104,289 acres, including 12,149 acres of Crown lands. The number of farms occupied at 30th June, 1949 and 1950 was 161 and 150 respectively.

§ 8. Settlement of Returned Soldiers and Sailors: 1914-18 War.

1. **General.**—Information regarding the methods adopted in each State following the commencement of the 1914–18 War for providing land for the settlement of returned soldiers and sailors, together with the conditions under which such land could be acquired,

is given in earlier issues of the Official Year Book (*see* No. 13, pp. 1010–23, and No. 18, pp. 187–9). Later modifications were made with a view to simplifying procedure and liberalizing the conditions under which holdings may be acquired.

Information on soldier settlement in this section suffers from the same defect, i.e. amalgamation of records, as does that on closer settlement in the foregoing section. Consequently, particulars of the position of soldier settlement in each State at the latest available dates only are given in the following paragraphs, and no aggregations for Australia are shown.

2. **New South Wales.**—At 30th June, 1950 (figures at 30th June, 1949 in parentheses) farms had been allotted to 9,908 (9,891) returned soldiers of the 1914–18 War. These farms included 4,009 provided from 1,710,272 acres of land acquired at a cost of £8,113,056. Five thousand six hundred and sixty-two (5,515) soldiers have either transferred or abandoned their farms, leaving 4,246 (4,376) in occupation of 5,253,251 (5,570,581) acres. Of this area 4,053,275 (4,332,702) acres were Crown lands, including 2,015,725 (2,092,130) acres in Western Division taken up under the Western Lands Act, 1,140,761 (1,175,695) acres acquired lands and 59,215 (62,184) acres within Irrigation Areas. These totals exclude 703 (703) discharged soldiers who purchased privately-owned land with their own capital and were granted advances for the purchase of stock and plant or for effecting improvements.

3. **Victoria.**—At 30th June, 1938 the area acquired or set apart for soldier settlement in respect of the 1914–18 War was 2,482,286 acres consisting of 1,763,241 acres of private land purchased at a cost of £13,301,206, plus 133,128 acres costing £1,240,722 taken from Closer Settlement, and 585,917 acres of Crown lands valued at £447,022. Subsequently 512,757 acres valued at £4,125,822 were transferred to Closer Settlement. Up to 30th June, 1938 the number of settlers to whom farms, etc., had been allotted was 12,126, and the number of farms, etc., allotted was 9,784 (including 955 farms originally purchased for closer settlement purposes) containing 2,365,518 acres. In addition, 802 share farmers and holders of leasing agreements and private land had received assistance. The number of farms, etc., occupied at 30th June, 1938 was 8,426 (including 1,001 originally purchased for closer settlement) containing 1,734,379 acres. Later particulars cannot be given, as separate details are not available.

4. **Queensland.**—At 30th June, 1929 the area acquired or set apart for soldier settlement (1914–18 War) was 577,033 acres, of which 41,101 acres comprised private land, purchased at a cost of £270,480. The number of farms occupied was 1,148, containing 440,092 acres. Some of these selections were acquired under the ordinary provisions of the Land Act, and do not include areas specially set apart for soldiers.

As special records are not now kept respecting the areas held by discharged soldier settlers, later information cannot be given.

5. **South Australia.**—At 30th June, 1950 the area of land acquired or set apart for soldier settlement (1914–18 War) was 1,336,012 acres, of which 1,202,053 acres comprised private land purchased at a cost of £3,803,572. These figures exclude mortgages discharged, £494,770, on 360,403 acres representing 300 farms, etc., and 314 settlers. The number of soldiers to whom assistance had been granted under the Discharged Soldiers' Settlement Acts up to 30th June, 1950 was 4,165, and the area of farms, etc. (including mortgages discharged) on which assistance had been granted was 2,746,744 acres. At 30th June, 1950 (1949) farms, etc., occupied numbered 1,093 (1,195) containing 701,350 (784,971) acres.

6. **Western Australia.**—At 30th June, 1947 the area of private land acquired for soldier settlement (1914–18 War) was 345,110 acres purchased at a cost of £605,076. To that date, assistance had been given to 5,213 returned soldiers, and the number of farms, etc., occupied was 1,145. No further land has been purchased for returned soldiers of the 1914–18 War.

Owing to the amalgamation of records in the Rural and Industries Bank, information regarding assistance to returned soldiers is no longer available, but at 30th June, 1944, the area of land acquired or set apart for soldier settlement was 14,287,643 acres.

7. **Tasmania.**—At 30th June, 1950 (figures at 30th June, 1949 in parentheses) the area acquired or set apart for soldier settlement (1914–18 War) was 367,137 (365,849) acres, of which 280,278 (278,990) acres comprised private land purchased at a cost of £2,114,134 (£2,111,042). Up to 30th June, 1950 (figures to 30th June, 1949 in parentheses) the number of settlers to whom farms, etc., had been allotted was 2,389 (2,385) and the number of farms, etc., allotted was 2,213 (2,209) containing 347,993 (345,207) acres. The number of farms, etc., occupied at 30th June, 1950 was 655 containing 112,675 acres compared with 741 containing 127,246 acres at 30th June, 1949.

8. **Losses on Soldier Settlements.**—For information regarding the financing arrangements for soldier settlement after the 1914–18 War, and the losses which occurred in connexion with it, *see* earlier issues of the Official Year Book, in particular, No. 28, pp. 131–2.

§ 9. Settlement of Returned Service Personnel : 1939-45 War.

1. **War Service Land Settlement Scheme.**—(i) *General.* The War Service Land Settlement Agreements Act 1945 authorized the execution by or on behalf of the Commonwealth of agreements between the Commonwealth and the States for proposals to settle discharged members of the Forces and other eligible persons on land in the States. The proposals were subsequently ratified by the States, and the agreements were signed in November, 1945.

Under the agreements with New South Wales, Victoria and Queensland, the State provides the capital for the purpose of acquiring, developing, and improving land for settlement, and for advances to settlers, bears the cost of State administration, and shares equally with the Commonwealth in certain other costs. Under the agreements with South Australia, Western Australia and Tasmania, the State administers the scheme on behalf of the Commonwealth, which makes the major financial contribution and accepts responsibility for policy decisions and exercises general supervision over the scheme (*see* also § 10. Advances to Settlers).

It was agreed that certain principles should be observed in putting settlers on holdings, the more important being that settlement should only be undertaken where economic prospects for production were reasonably sound, that applicants must be considered satisfactory for settlement under the scheme, and that holdings should be large enough for settlers to operate efficiently and earn a reasonable labour income. In general, holdings must be allotted on perpetual leasehold tenure.

The method of operation is for the State to select land suitable for settlement and to submit it, with detailed information about the property, to the Commonwealth for approval. When this has been obtained, the State proceeds with the sub-division of the property, the selection of settlers, and the improvement of holdings to the stage where they can be brought into production by the settler within reasonable time.

For more detailed information about the agreements and the methods of operation and administration of the Scheme *see* Official Year Book No. 37, pp. 113–8.

(ii) *Summary of Operations to 31st December, 1950.* The tables hereunder show the operations of the War Service Land Settlement Scheme in each State up to 31st December, 1950.

WAR SERVICE LAND SETTLEMENT (1939–45 WAR): SUMMARY TO 31st DECEMBER, 1950.

State.	Land Submitted by States.		Land Approved by Commonwealth.				Land under Consideration.	Land Rejected or Withdrawn.
			As Suitable for Soldier Settlement.		Acquired by States.			
	Submissions.	Area.	Properties.	Area.	Properties.	Area.	Area.	Area.
	No.	Acres.	No.	Acres.	No.	Acres.	Acres.	Acres.
New South Wales—								
Subdivision ..	91	1,389,570	83	1,203,101	55	771,278	..	186,469
Irrigation Lands	23	257,520	23	224,860	13	154,102	1,012	31,648
Western Division	129	4,253,920	120	3,538,334	120	3,538,334	..	715,586
Promotion Scheme	410	1,122,660	319	977,275	243	786,666	2,640	142,745
Irrigation Lands	66	91,158	60	81,715	45	68,690	808	8,635
Total, New South Wales ..	719	7,114,828	605	6,025,285	476	5,319,070	4,460	1,085,083
Victoria—								
Irrigation Lands	17	162,768	17	117,768	16	75,880	..	45,000
Other	173	756,908	154	696,244	136	609,913	40,156	20,508
Total, Victoria ..	190	919,676	171	814,012	152	685,793	40,156	65,508
Queensland ..	169	366,263	137	295,059	101	173,778	197	71,007
South Australia ..	149	509,261	121	381,063	119	367,760	2,029	126,169
Western Australia	703	1,955,429	498	1,434,881	475	1,109,500	41,986	478,562
Tasmania .	(a) 73	392,090	(a) 50	286,609	(a) 36	110,916	12,926	92,555
Total, Australia	2,003	11,257,547	1,582	9,236,909	1,359	7,766,817	101,754	1,918,884

State.	Land Approved by Commonwealth for Subdivision.			Single Properties Approved by Commonwealth.		Land Allotted to Settlers.	
	Properties.	Area.	Holdings.	Area.	Properties.	Area.	Holdings.
	No.	Acres.	No.	Acres.	No.	Acres.	No.
New South Wales—							
Subdivision	68	934,886	806	..	..	727,027	609
Irrigation Lands ..	19	183,524	230	..	..	124,084	141
Western Division ..	..	..	..	3,538,334	120	3,443,254	116
Promotion Scheme ..	159	784,939	539	192,349	159	799,632	584
Irrigation Lands ..	27	68,259	122	13,039	32	58,898	97
Total, New South Wales	273	1,971,608	1,697	3,743,722	311	5,152,895	1,547
Victoria—							
Irrigation Lands ..	12	72,237	752	2,336	5	49,688	412
Other	142	602,561	1,028	5,881	8	563,935	938
Total, Victoria ..	154	674,798	1,780	8,217	13	613,623	1,350
Queensland	81	247,667	438	14,957	41	155,548	312
South Australia	68	207,519	549	14,027	27	90,950	282
Western Australia ..	119	634,241	317	453,564	351	769,481	440
Tasmania	(a) 16	83,243	104	18,193	22	19,801	35
Total, Australia ..	711	3,819,076	4,885	4,252,680	765	6,802,298	3,966

(a) Excludes portion of one property.

(iii) *Expenditure.* The following table shows a dissection of the Commonwealth expenditure on War Service Land Settlement to 31st December, 1950 :—

WAR SERVICE LAND SETTLEMENT (1939–45 WAR) : COMMONWEALTH EXPENDITURE TO 31st DECEMBER, 1950.

(£.)

Advances to States.	N.S.W.	Vic.	Qld.	S. Aust.	W. Aust.	Tas.	Total.
For acquisition of land ..	..	..	..	1,512,855	2,979,066	581,750	5,073,671
For development and improvement of land ..	..	..	..	3,191,819	2,462,346	981,768	6,635,933
Commonwealth contributions to excess cost over valuation	..	..	11,438	..	110,250	..	121,688
To provide credit facilities to settlers	..	..	..	384,922	2,338,728	128,601	2,852,251
For remission of settlers' rent and interest ..	82,753	1,847	6,096	7,837	78,335	..	176,868
For payment of living allowances to settlers ..	399.677	245,000	71,000	40,991	130,680	9,881	897,229
For operation and maintenance of irrigation projects	..	..	..	48,100	2,894	..	50,994
Loss on advances ..	..	14	..	..	..	..	14
Total	482,430	246,861	88,534	5,186,524	8,102,299	1,702,000	15,808,648

Repayments of expenditure to 31st December, 1950 on the acquisition, development and improvement of land amounted to £185.429, and on the provision of credit facilities to settlers to £1,482,311, so that the total expenditure was reduced by £1,667,740 to £14,140,908. In addition, miscellaneous receipts in South Australia and Western Australia to 31st December, 1950 amounted to £161,581.

2. **Loans and Allowances (Agricultural Occupations) Scheme.**—(i) *General.* Full details of the measures taken to provide for the re-establishment of ex-servicemen in rural occupations are contained in Official Year Book No. 37, pp. 117–8.

(ii) *Loans* (*Agricultural Occupations*). The following table shows particulars for each State and certain Territories to 31st December, 1950 :—

LOANS (AGRICULTURAL OCCUPATIONS) : SUMMARY TO 31st DECEMBER, 1950.

State.	Applications.			Loans Approved.			Advanced by Commonwealth Treasury to Lending Authorities.	Advanced by Lending Authorities to Applicants. (b)
					Net Approvals.(a)			
	Received.	Approved.	Refused, Withdrawn or Not Yet Approved.	Gross Amount.	Applications.	Amount.		
				£		£	£	£
New South Wales	7,547	6,127	1,420	4,779,219	5,380	4,151,750	2,660,000	3,935,298
Victoria ..	4,743	3,273	1,470	2,116,515	3,054	1,976,101	1,040,000	1,691,830
Queensland ..	2,318	1,923	395	1,062,492	1,593	877,971	610,000	793,789
South Australia ..	1,987	1,181	806	898,279	1,121	858,885	465,000	684,536
Western Australia	3,069	2,194	875	2,033,866	2,067	1,922,870	1,110,000	1,647,075
Tasmania ..	1,097	723	374	442,915	693	424,054	285,400	358,374
Northern Territory	38	15	23	12,620	11	9,796	10,748	6,829
New Guinea ..	11	7	4	6,192	4	3,692	3,997	1,781
Norfolk Island ..	4	1	3	1,000	..	..	..	..
Total ..	20,814	15,444	5,370	11,353,098	13,923	10,225,119	6,185,145	9,119,512

(a) After deduction of loans declined after approval—£1,127,979. (b) Includes advances from principal repaid by borrowers.

These loans are made to eligible ex-servicemen for the purchase of land, effecting improvements on land, the acquisition of tools of trade, live-stock, plant or equipment, the establishment of a co-operative business with other persons, reduction or discharge of a mortgage, bill of sale, etc.

(iii) *Allowances (Agricultural Occupations).* The following table shows details for each State and New Guinea to 31st December, 1950 :—

ALLOWANCES (AGRICULTURAL OCCUPATIONS) : SUMMARY TO 31st DECEMBER, 1950.

State.	Applications.			Advanced by Commonwealth Treasury to Bank.	Allowances Paid.
	Received.	Approved.	Rejected, Withdrawn or Not Yet Approved.		
				£	£
New South Wales ..	3,997	3,554	443	560,000	556,252
Victoria	3,040	2,285	755	295,000	288,955
Queensland.. ..	2,865	2,414	451	434,000	427,876
South Australia (*a*) ..	2,167	1,666	501	297,000	292,429
Western Australia ..	2,927	2,526	401	449,500	446,244
Tasmania	602	494	108	94,000	97,123
New Guinea ..	3	2	1	592	550
Total ..	15,601	12,941	2,660	2,130,092	2,109,429

(*a*) Includes allowances paid to four ex-servicemen in Northern Territory.

These allowances are payable only in respect of the period during which the income derived from the occupation by the ex-serviceman concerned is considered inadequate.

3. **War Service Land Settlement Division—Total Expenditure.**—The following table shows details, by States and Territories, of the total expenditure of the War Service Land Settlement Division for the years 1945–46 to 1950–51, and the aggregate to 30th June, 1951. The aggregate, £28,858,070, includes—War Service land settlement, £18,538,288; agricultural loans, £6,200,144; agricultural allowances, £2,198,551; administrative expenses, £595,345; rural training, £1,325,742.

COMMONWEALTH WAR SERVICE LAND SETTLEMENT DIVISION : EXPENDITURE.

(£.)

Period.	N.S.W.	Vic.	Qld.	S. Aust.	W. Aust.	Tas.	N. Ter.	N. G'nea.	Total.
1945–46 ..	120,500	153,804	60,000	263,299	610,042	331,769	..	..	1,539,414
1946–47 ..	1,289,426	536,230	261,780	1,285,495	1,337,384	140,506	2,000	..	4,852,821
1947–48 ..	1,191,480	618,637	324,000	887,712	1,769,701	294,936	..	..	5,086,466
1948–49 ..	870,890	388,323	269,158	1,169,650	2,156,805	366,240	..	..	5,221,066
1949–50 ..	629,094	302,966	301,453	1.691,974	2,617,441	641,083	4,453	4,158	6,192,622
1950–51 ..	287,491	145,773	109,691	1,743,583	2,844.116	830,343	4,295	389	5,965,681
Total to 30th June, 1951	4,388,881	2,145,733	1,326,082	7,041,713	11,335.489	2,604,877	10,748	4,547	28,858,070

After deducting repayments of expenditure to 30th June, 1951 which amounted to £2,343,066 and miscellaneous receipts (£1,084,996), the net expenditure to 30th June, 1951 was £25,430,008.

§ 10. Advances to Settlers.

1. **General.**—A detailed statement regarding the terms and conditions governing advances to settlers in the several States and the Northern Territory appears in preceding issues of the Official Year Book (*see* No. 22, pp. 179–186).

The summaries of loans and advances in the following paragraphs are compiled from returns supplied by the various government lending agencies in the several States. They include the transactions in lands acquired under closer and soldier settlement schemes, but exclude the balances owing on former Crown lands sold on the conditional purchase, etc., system.

The amounts outstanding do not represent the actual differences between the total advances and settlers' repayments, for considerable remissions of indebtedness have been made in all States as a result of reappraisements of land values and the writing down of debts. In general, they include both principal and interest outstanding.

A summary for Western Australia is not included, as practically the only Governmental funds being made available are Commonwealth (*see* § 9 above).

In New South Wales and Victoria expenditure on the acquisition, development and improvement of land for war service land settlement is provided for by the States, and particulars thereof are included in the respective summaries. In Queensland no money is paid for the value of the land acquired, most land being occupied on lease from the Government, but advances in respect of improvements are included. In the other States, this expenditure is provided for by the Commonwealth and particulars are included in § 9 above. Loans (Agricultural Occupations) under the Commonwealth Re-establishment and Employment Act 1945, although made from finance provided by the Commonwealth, are included in the summaries following.

2. New South Wales.—The following table shows particulars respecting advances, etc., under State Authorities to 30th June, 1950 :—

ADVANCES TO SETTLERS, ETC. : NEW SOUTH WALES.

Advances, etc.	Advances, etc., made during—		Total Advances, etc., at 30th June, 1950.	Balance outstanding at 30th June, 1950.	
	1948–49.	1949–50.		Number of Accounts.	Amount.
	£	£	£		£
Department of Lands—					
Closer Land Settlement ..	..	..	15,113,154	6,386	*a* 3,554,869
Soldier Settlers, 1914–18 War ..	..	..	*b* 3,196,005	662	258,345
1939–45 War ..	1,460,764	1,753,387	3,611,093	1,289	2,112,943
Soldier Land Settlement—Acquisition, development and improvement of land, War Service Land Settlement Agreement Act ..	3,062,836	2,606,747	9,985,812	1,321	*c* 8,651,005
Wire Netting	..	..	1,494,653	707	74,820
Prickly Pear	9,262	9,966	192,058	234	5,413
Rural Bank—					
General Bank Department—					
Commonwealth Re-establishment and Employment Act 1945 ..	864,349	719,184	3,655,840	3,999	2,582,963
Other	3,580,899	5,326,302	55,621,881	11,452	17,920,106
Government Agency Department—					
Rural Industries	19,381	36,395	7,711,050	600	280,971
Unemployment Relief and Dairy Promotion	22,546	25,801	1,536,630	797	174,071
Rural Reconstruction (*d*) ..	768,267	449,387	11,608,819	1,830	3,288,184
Shallow Boring	27,657	27,560	993,556	313	112,140
Farm Water Supplies	20,834	11,296	46,256	98	38,882
Soil Conservation	..	365	365	1	370
Irrigation Areas..	72,741	150,016	(*e*)	435	1,356,694
Government Guarantee Agency ..	34,264	13,100	217,491	13	8,167
Closer Settlement Agency ..	..	..	166,826	85	104,819
Total	9,943,800	11,129,506	*f* 115,151,489	30,222	40,524,762

(*a*) Excludes an amount of £4,564,097 to 30th June, 1950, capitalized on conversion into leasehold under the Closer Settlement Amendment (Conversion) Act 1943. (*b*) In addition, the sum of £1,926,662 to 30th June, 1950 has been expended on developmental works on soldiers' settlements. (*c*) Includes capital value of Closer Settlement Leases, £7,676,552, and unpaid balance and interest on structural improvements, £974,453. (*d*) Includes Debt Adjustment, Drought Relief, and Marginal Wheat Areas Scheme Advances (Commonwealth and State Moneys), amount outstanding £2,415,300. (*e*) Not available. (*f*) Incomplete.

3. **Victoria.**—The following table shows particulars respecting advances, etc., under State Authorities to 30th June, 1950:—

ADVANCES TO SETTLERS, ETC.: VICTORIA.

Advances, etc.	Advances, etc., made during—		Total Advances, etc., at 30th June, 1950.	Balance outstanding at 30th June, 1950.	
	1948–49.	1949–50.		Number of Persons.	Amount.
	£	£	£		£
State Savings Bank, Credit Foncier—					
Civilians	82,694	63,948	11,549,971	1,534	1,303,305
Discharged Soldiers	139	122	847,869	100	64,867
Treasurer—					
Cool Stores, Canneries, etc.	82,000	60,000	1,079,983	(a) 6	297,494
Department of Lands and Survey—					
Closer Settlement Settlers and Soldier Settlers	..	..	(b) 46,904,855	4,489	5,140,645
Cultivators of Land	8,049	3,851	2,461,700	485	85,000
Wire Netting	16,037	10,988	618,566	567	82,031
Soldier Settlement Commission—					
Purchase of land	1,395,750	1,214,105	6,606,220	..	6,228,608
Development and Improvement of Holdings (c)	1,208,104	1,865,827	3,671,144	..	3,653,106
Advances for sales of land not required for Soldier Settlement	91,464	284,055	377,613	5	24,163
Advances to assist in acquiring and developing single unit farms	1,460,839	1,356,907	5,674,733	1,531	5,304,812
Advances for improvements, stock, implements, etc.	4,226	325,082	335,758	485	237,176
Commonwealth Re-establishment and Employment Act 1945 Advances	354,339	275,982	1,509,742	1,730	915,027
Total	4,703,641	5,460,867	81,638,154	10,932	23,336,234

(a) Companies and Co-operative Societies. (b) Represents consolidated debts of settlers (Section 30, Act 4091). (c) Includes State Rivers and Water Supply Commission expenses—balance outstanding at 30th June, 1950, £260,672.

4. **Queensland.**—The following table shows particulars of advances to 30th June, 1950. The figures exclude transactions in land.

ADVANCES TO SETTLERS: QUEENSLAND.

Advances.	Advances, etc., made during—		Total Advances, etc., at 30th June, 1950.	Balance outstanding at 30th June, 1950.	
	1948–49.	1949–50.		Number of Accounts.	Amount.
	£	£	£		£
Co-ordination of Rural Advances and Agricultural Bank Acts	889,391	942,264	13,608,364	3,045	3,456,878
Discharged Soldiers' Settlement (a)	123	87	2,470,166	430	97,218
Water Facilities	..	..	58,079	38	2,469
Wire Netting, etc.	..	..	1,019,403	869	101,423
Seed Wheat and Barley	2,186	439	(b) 136,278	(c)	12,564
Drought Relief	..	..	699,369	105	160,254
War Service Land Settlement	215,807	466,005	735,888	259	724,180
Income (Unemployment Relief and State Development) Tax Acts (d)	80	6	1,184,560	740	150,719
Irrigation	..	..	54,914	25	9,063
Farmers' Assistance (Debt Adjustment Acts)	12,206	12,276	1,013,067	195	362,328
Commonwealth Re-establishment and Employment Act 1945	182,701	196,190	682,760	890	483,397
Total	1,302,494	1,617,267	21,662,848	(e) 6,596	5,560,493

(a) Includes advances to group settlers through the Lands Department, as well as advances through the Agricultural Bank. (b) Includes accrued interest. (c) Not available. (d) Largely for relief to cotton and tobacco growers and for rural development (ringbarking, clearing, fencing, etc.). (e) Incomplete.

5. **South Australia.**—The following table shows particulars respecting advances, under State Authorities to 30th June, 1950 :—

ADVANCES TO SETTLERS : SOUTH AUSTRALIA.

Advances.	Advances made during—		Total Advances at 30th June, 1950.	Balance outstanding at 30th June, 1950.	
	1948–49.	1949–50.		Number of Persons.	Amount.
Department of Lands—	£	£	£		£
Advances to Soldier Settlers ..	89,939	120,327	4,673,597	572	1,678,274
Advances to Blockholders ..	..	..	41,451	..	..
Advances for Sheds and Tanks ..	..	..	75,693	52	7,998
Advances under Closer Settlement Acts	21,044	22,850	2,604,803	863	995,426
Advances under Agricultural Graduates Settlement Act	..	..	62,258	22	33,570
Settlement of Returned Service Personnel, 1939–45 War	77,757	145,455	230,196	300	224,838
Primary Producers Assistance Department—					
Advances in Drought-affected Areas	..	..	2,146,768	121	59,525
Advances under Farmers Relief Acts	4,202	2,295	4,435,509	200	43,607
Irrigation Branch—					
Advances to Civilians	319	..	290,949	144	35,754
Advances to Soldier Settlers ..	1,019	424	1,045,268	521	554,294
State Bank of South Australia (Credit Foncier Department)	160,222	200,748	6,235,580	970	785,994
Advances to Primary Producers ..	12,525	4,320	1,193,240	195	352,018
Advances to Settlers for Improvements	2,317	537	1,125,505	293	63,987
Advances under Vermin and Fencing Acts	221	397	1,377,754	1,005	108,210
Advances under Loans to Producers Act	32,437	87,917	504,097	50	280,031
Commonwealth Re-establishment and Employment Act 1945	132,470	112,797	620.952	607	428,649
Total	534,472	698,067	26,663.620	5,915	5,652,175

6. **Western Australia.**—The operations prior to 1945 covered in this section related to moneys made available through, or by, the old Agricultural Bank and other Government Departments for the purpose of agricultural development. On 1st October, 1945, however, the Agricultural Bank was reconstituted as the Rural and Industries Bank of Western Australia, and was given authority to operate similarly to the associated banks. Certain securities in the books of the old bank were taken over by the general banking division of the new bank, and the clients concerned then operated with privileges and obligations similar to those provided by other banking institutions. The majority of the remaining securities, also, were eventually transferred.

At present, very limited funds are being made available by the State Government for advances for agricultural development, the bulk of the moneys for this purpose being provided by the Commonwealth Government under the War Service Land Settlement and Commonwealth Re-establishment and Employment Acts. Particulars of this expenditure are shown in § 9 above.

7. **Tasmania.**—The following table shows particulars of advances under State Authorities to 30th June, 1950. Although not regarded as outstanding advances by the Department of Agriculture the figures in connexion with closer and soldier land settlement have been included in the table for comparative purposes ; the areas so purchased have been leased on 99-year terms having an option of purchase which the leaseholder may exercise at any time.

ADVANCES TO SETTLERS, ETC. : TASMANIA.

Advances, etc.	Advances made during—		Total Advances at 30th June, 1950.	Balance outstanding at 30th June, 1950.	
	1948–49.	1949–50.		Number of Persons.	Amount.
	£	£	£		£
Agricultural Bank—					
State Advances Act and Rural Credits	150,781	146,870	2,333,982	445	(a) 334,593
Orchardists' Relief, 1926	..	..	46,832	2	85
Unemployed (Assistance to Primary Producers) Relief Act 1930–1931	..	..	114,302	12	792
Bush Fire Relief 1934	..	..	14,855	6	227
Flood Sufferers' Relief Act 1929 ..	..	..	35,523	3	923
Crop Losses, 1934–35	..	..	10,086	9	411
Assistance to Fruitgrowers Act 1941	..	..	34,556	7	384
Flood Sufferers' Relief Act, 1942 ..	..	..	3,764	..	..
Flood Sufferers' Relief Act, 1944 ..	..	..	1,902	5	1,013
Commonwealth Re-establishment and Employment Act 1945 ..	76,722	83,935	313,587	362	250,927
Primary Producers' Relief Act 1947	..	..	297,846	820	294,045
Minister for Agriculture—					
Soldier Settlers—					
Advances	46,784	7,253	938,860	22	(b) 27,194
Purchase of Estates, etc. (c) ..	13,027	5,244	2,543,347	(d) 655	660,761
Closer Settlers—					
Advances	1,201	651	94,441	6	2,672
Purchase of Estates, etc. (c) ..	3,283	463	519,656	(d) 150	181,279
Total	291,798	244,416	7,303,539	2,504	1,755,306

(a) Excludes £14,346 forfeited properties. (b) Excludes £200,593 advances capitalized, £79,114 advances written off to bad debts, and £40,789 written off to revaluation. (c) Not regarded as outstanding advances by the Department. (d) Number of leaseholders, including those to whom advances have been made.

8. **Northern Territory.**—During the financial year 1948–49 two advances totalling £976 were made and in 1949–50 one advance for £300 was made. The total amount advanced to 30th June, 1950, was approximately £26,970. At 30th June, 1950 the balance outstanding from 10 settlers, including interest, was £1,051.

9. **Summary of Advances.**—The following table is a summary for each State (except Western Australia) and the Northern Territory to the 30th June, 1950. The particulars, so far as they are available, represent the total sums advanced to settlers, including amounts spent by the various Governments in the purchase and improvement of estates disposed of by closer and soldier land settlement, while the amounts outstanding reveal the present indebtedness of settlers to the Governments, including arrears of principal and interest but excluding amounts written off debts and adjustments for land revaluations. Particulars of Loans (Agricultural Occupations) under the Commonwealth Re-establishment and Employment Act 1945 provided from Commonwealth funds are included for each State.

ADVANCES TO SETTLERS, ETC. : SUMMARY.

State.	Advances, etc., made during—		Total Advances, etc., at 30th June, 1950.	Balance outstanding at 30th June, 1950.	
	1948–49.	1949–50.		Number of Persons.	Amount.
	£	£	£		£
New South Wales(a) ..	9,943,800	11,129,506	(b)115,151,489	(c) 30,222	40,524,762
Victoria(a)	4,703,641	5,460,867	81,638,154	10,932	23,336,234
Queensland	1,302,494	1,617,267	21,662,848	(b)(c) 6,596	5,560,493
South Australia ..	534,472	698,067	26,663,620	5,915	5,652,175
Tasmania	291,798	244,416	7,303,539	2,504	1,755,306
Northern Territory ..	976	300	26,970	10	1,051

(a) Includes expenditure on acquisition, development and improvement of land for war service land settlement (*see* p. 124). (b) Incomplete. (c) Number of accounts.

§ 11. Alienation and Occupation of Crown Lands.

1. **General.**—The figures shown in the previous parts of this chapter show separately the areas alienated, in process of alienation, or occupied under various tenures. The following tables set out the position in regard to the tenure of land in each State, in the Northern Territory, and in the Australian Capital Territory during the latest year for which information is available—1950 in all cases. A summary for each State and Territory and for Australia as a whole is also supplied. Particulars for each year from 1930 to 1949 appear in *Primary Industries Bulletin* No. 44, page 7. The area occupied includes roads, permanent reserves, forests, etc. In some cases, lands which are permanently reserved from alienation are occupied under leases and licences, and have been included therein. Lands occupied under leases or licences for pastoral purposes are frequently held on short tenures only, and could thus be made available for settlement practically whenever required.

2. **New South Wales.**—The total area of New South Wales is 198,037,120 acres, of which 25.8 per cent. had been alienated at 30th June, 1950, 7.4 per cent. was in process of alienation, 58.8 per cent. was held under leases and licences; and the remaining 8.0 per cent. was unoccupied or held by the Crown.

The following table shows particulars as at 30th June, 1950 :—

ALIENATION AND OCCUPATION OF CROWN LANDS : NEW SOUTH WALES, 30th JUNE, 1950.

(Acres.)

Particulars.	Area.	Particulars.	Area.
1. *Alienated.*		3. *Held under Leases and Licences.*	
Granted and sold prior to 1862 ..	7,146,579	Homestead selections and grants ..	1,652,343
Sold by auction and other sales, 1862 to date	15,316,955	Alienable leases, long-term and perpetual	26,847,939
Conditionally sold, 1862 to date	32,954,036	Long-term leases with limited right of alienation	1,333,544
Granted under Volunteer Land Regulations, 1867 to date ..	172,198	Other long-term leases	77,349,681
Granted for public and religious purposes	265,873	Short-term leases and temporary tenures	7,032,647
		Forest leases	2,127,599
	55,855,641	Mining and auriferous leases (a) (b)	197,804
Less lands resumed or reverted to Crown	4,804,307	Total	116,541,557
Total	51,051,334		
2. *In Process of Alienation.*		4. *Unoccupied*—Particulars of Lord Howe Island not being available, the area, 3,220 acres, is included under unoccupied (Approximate)	15,779,581
Conditional purchases	12,599,238		
Closer settlement purchases ..	1,699,190		
Soldiers' group purchases ..	170,953		
Other forms of sale	195,267		
Total	14,664,648	5. *Total Area of State*	198,037,120

(a) At 31st December, 1949. (b) Excludes lands held by virtue of miners' rights and business licences; also lease areas applied for, and in occupation, under the Mining Act 1906, but not yet confirmed.

3. **Victoria.**—The total area of Victoria is 56,245,760 acres, of which 53.4 per cent. had been alienated up to the end of 1950; 4.9 per cent. was in process of alienation under deferred payments and closer settlement schemes; 17.4 per cent. was occupied under leases and licences; and 24.3 per cent. was unoccupied or held by the Crown.

The following table shows the distribution :—

ALIENATION AND OCCUPATION OF CROWN LANDS : VICTORIA, 31st DECEMBER, 1950.

(Acres.)

Particulars.	Area.	Particulars.	Area.
1. *Alienated*	30,004,888	3. *Leases and Licences held—*	
		Under Lands Department—	
		Perpetual Leases ..	78,862
		Agricultural College Leases	53,957
		Other Leases and Licences	19,910
2. *In Process of Alienation—*		Temporary (Yearly) Grazing Licences	8,555,410
Exclusive of Mallee and Closer Settlement Lands	337,505	Under Mines Department(*a*) ..	1,095,637
Mallee Lands (exclusive of Closer Settlement Lands) ..	1,888,881	Total	9,803,776
Closer Settlement Lands ..	532,964		
Village Settlement	33	4. *Occupied by the Crown or Unoccupied*	13,677,713
Total	2,759,383	5. *Total Area of State*	56,245,760

(*a*) Includes State Coal Mine area, 7,575 acres and State Electricity Commission area, 2,800 acres.

4. **Queensland.**—The total area of this State is 429,120,000 acres, of which, on 31st December, 1950, 5.5 per cent. was alienated ; 1.0 per cent. was in process of alienation ; and 83.7 per cent. was occupied under leases and licences. The remainder, 9.8 per cent., was either unoccupied or held as reserves or for roads.

The distribution is shown in the following table :—

ALIENATION AND OCCUPATION OF CROWN LANDS : QUEENSLAND, 31st DECEMBER, 1950.

(Acres.)

Particulars.	Area.	Particulars.	Area.
1. *Alienated—*		3. *Occupied under Leases and Licences—*	
By Purchase	23,391,178	Pastoral Leases	242,637,520
Without Payment	92,116	Occupation Licences ..	20,257,200
		Grazing Selections and Settlement Farm Leases ..	85,662,684
		Leases—Special Purposes ..	*a* 1,583,247
		Mining Leases	481,105
		Perpetual Leases Selections and Perpetual Lease Prickly Pear Selections	6,549,519
		Auction Perpetual Leases, etc.	(*b*) 513,514
		Forest Grazing Leases (of Reserves)	1,736,580
		Total	359,421,369
Total	23,483,294	4. *Reserves (net, not leased), Surveyed Roads and Surveyed Stock Routes*	22,246,044
		5. *Unoccupied*	19,699,040
2. *In Process of Alienation* ..	4,270,253	6. *Total Area of State*	429,120,000

(*a*) Special leases of Crown Land, 520,738 acres ; special leases of reserves, 1,062,500 acres.
(*b*) Includes 481,157 acres over which perpetual country leases were granted to Queensland-British Food Corporation.

5. **South Australia.**—The area of South Australia is 243,244,800 acres and at 30th June, 1950, 5.6 per cent. was alienated ; 0.3 per cent. in process of alienation ; 71.3 per cent. occupied under leases and licences ; and 22.8 per cent. occupied by the Crown or unoccupied.

The following table shows the distribution :—

ALIENATION AND OCCUPATION OF CROWN LANDS : SOUTH AUSTRALIA, 30th JUNE, 1950.

(Acres.)

Particulars.	Area.	Particulars.	Area.
1. *Alienated*—		3. *Held under Lease and Licence*—	
Sold	13,554,544	Perpetual Leases, including Irrigation Leases	18,440,496
Granted for Public Purposes	135,363	Pastoral Leases	115,672,014
		Other Leases and Licences	2,677,817
		Mining Leases and Licences	36,672,566
Total	13,689,907	Total	173,462,893
		4. *Area Unoccupied* (*a*)	55,509,385
2. *In Process of Alienation*	582,615	5. *Total Area of State*	243,244,800

(*a*) Includes surveyed roads, railways and other reserves, salt water lakes, lagoons, and fresh water lakes.

6. Western Australia.—The total area of Western Australia is 624,588,800 acres, of which, at 30th June, 1950, 3.4 per cent. was alienated ; 1.8 per cent. was in process of alienation ; and 36.2 per cent. was occupied under leases and licences issued either by the Lands, Mines or Forests Departments. The balance of 58.6 per cent. was unoccupied.

The following table shows the distribution :—

ALIENATION AND OCCUPATION OF CROWN LANDS : WESTERN AUSTRALIA, 30th JUNE, 1950.

(Acres.)

Particulars.	Area.	Particulars.	Area.
1. *Alienated*	21,263,085	3. *Leases and Licences in Force*—	
		(i) Issued by Lands Department—	
2. *In Process of Alienation*—		Pastoral Leases	219,200,060
Midland Railway Concessions	54,800	Special Leases	2,191,236
Free Homestead Farms	433,645	Leases of Reserves	569,204
Conditional Purchases	6,506,783	Residential Lots	4,776
Selections under the Agricultural Lands Purchase Act	439,340	Perpetual Leases	523,801
Grazing Leases	4,075,719	(ii) Issued by Mines Department—	
Town and Suburban Lots	3,291	Gold-mining Leases	26,447
Crown Grants of Reserves	953	Mineral Leases	41,212
		Miners' Homestead Leases	30,209
		(iii) Issued by Forests Department—	
		Timber Permits	3,418,217
		Total	226,005,162
		4. *Area Unoccupied* (*a*)	365,806,022
Total	11,514,531	5. *Total Area of State*	624,588,800

(*a*) Includes reservations for roads and various public purposes, 51,808,817 acres.

7. **Tasmania.**—The total area of Tasmania is 16,778,000 acres, of which, at 30th June, 1950, 36.6 per cent. had been alienated; 2.2 per cent. was in process of alienation; 16.9 per cent. was occupied under leases and licences for either pastoral, agricultural, timber, or mining purposes, or for closer or soldier settlement; while the remainder (44.3 per cent.) was unoccupied or reserved by the Crown.

The following table shows the distribution :—

ALIENATION AND OCCUPATION OF CROWN LANDS : TASMANIA, 30th JUNE, 1950.

(Acres.)

Particulars.	Area.
1. *Alienated*	6,143,313
2. *In Process of Alienation* ..	365,096
3. *Leases and Licences*—	
(i) Issued by Lands Department—	
Islands	167,783
Ordinary Leased Land ..	1,989,565
Land Leased for Timber	448,128
Closer Settlement ..	43,813
Soldier Settlement ..	134,296
Short-Term Leases ..	15,014
(ii) Issued by Mines Department	(a) 30,462
Total	2,829,061
4. *Area Occupied by the Crown or Unoccupied* (b)	7,440,530
5. *Total Area of State*	16,778,000

(a) At 31st December, 1950. (b) Includes reservations for roads and various other public purposes, 4,016,430 acres, and lands occupied by Commonwealth or State Departments, 21,769 acres.

8. **Northern Territory.**—The area of the Northern Territory is 335,116,800 acres, of which, at 30th June, 1950, only 0.1 per cent. was alienated; 48.5 per cent. was held under leases and licences; 13.6 per cent. was reserved for aboriginal, defence and public requirements; and the remaining 37.8 per cent. was unoccupied and unreserved.

The following shows the mode of occupancy of areas at 30th June, 1950 :—

ALIENATION AND OCCUPATION OF CROWN LANDS : NORTHERN TERRITORY, 30th JUNE, 1950.

(Acres.)

Particulars.	Area.
1. *Alienated*	455,040
2. *Leased*—	
Pastoral leases	122,815,360
Other leases, licences and mission stations	39,745,280
Total	162,560,640
3. *Reserved*—	
Aboriginal, defence and public requirements ..	45,454,720
4. *Unoccupied and Unreserved*	126,646,400
5. *Total Area*	335,116,800

9. **Australian Capital Territory.**—Alienated land of the Territory (excluding the Jervis Bay area) at the end of 1950 comprised 10.9 per cent. of the total area, land in process of alienation 7.0 per cent., land held under lease and licence 54.5 per cent., land otherwise occupied, including city tenures 11.4 per cent. and unoccupied 16.2 per cent.

The following table shows particulars of land areas in the Australian Capital Territory (excluding the Jervis Bay area) at the end of 1950:—

ALIENATION AND OCCUPATION OF CROWN LANDS: AUSTRALIAN CAPITAL TERRITORY (a), 31st DECEMBER, 1950.

(Acres.)

Particulars.	Area.
1. *Alienated*	63,635
2. *In Process of Alienation*	41,053
3. *Leased, etc.*—	
Grazing, agriculture, etc., leases	310,695
Grazing licences	7,174
Total	317,869
4. *Otherwise Occupied* (b)	66,115
5. *Unoccupied*	94,128
6. *Total Area* (a)	582,800

(a) Excludes the Jervis Bay area of 18,000 acres—12,788 acres leased and 5,212 acres otherwise occupied—making a grand total of 600,800 acres. (b) Includes city area tenures.

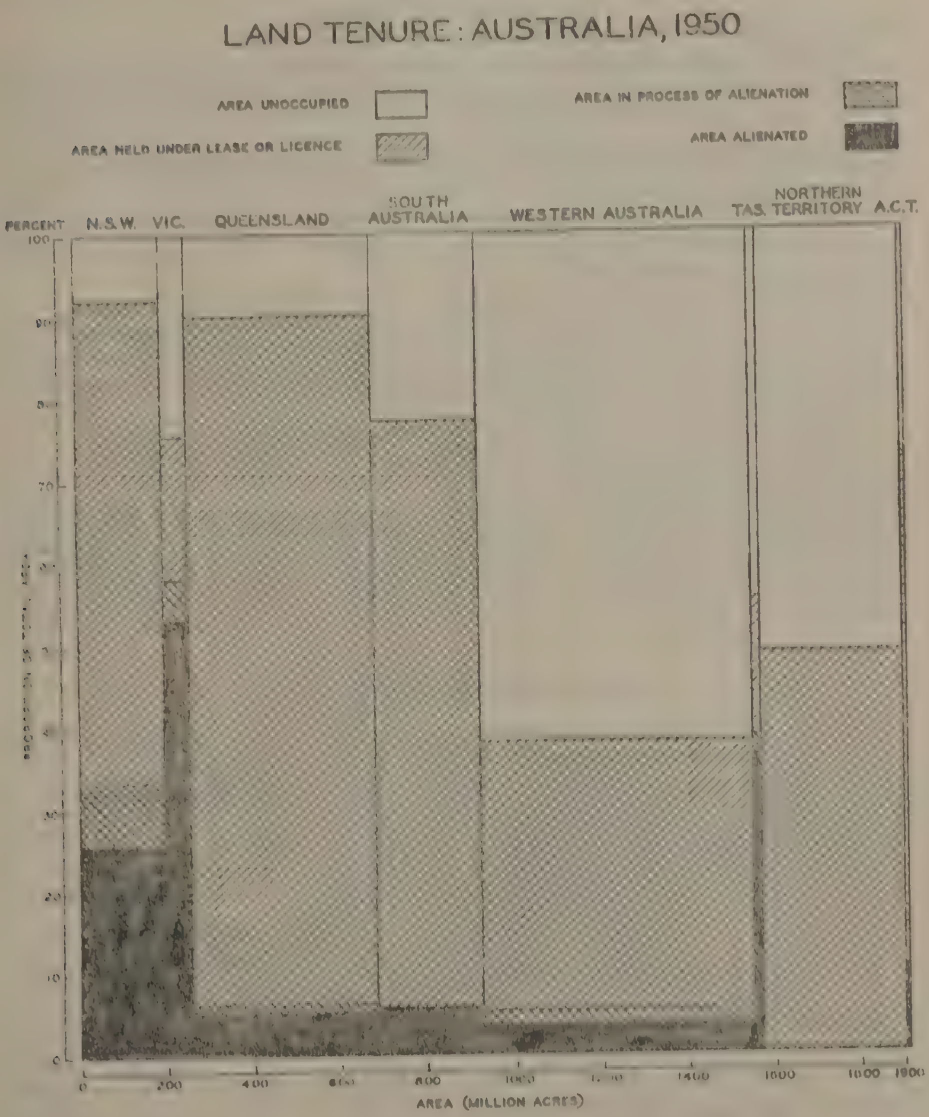
10. **Summary.**—The following table provides a summary for each State and Territory, and for Australia as a whole, of the alienation and occupation of Crown lands for 1949 and 1950:—

ALIENATION AND OCCUPATION OF CROWN LANDS.

State or Territory.	Private Lands.				Crown Lands.				Total Area.
	Alienated.		In Process of Alienation.		Leased or Licensed.		Other.		
	'000 Acres.	Per Cent.	'000 Acres.	Per Cent.	'000 Acres.	Per Cent.	'000 Acres.	Per Cent.	'000 Acres.
1949.									
N.S.W. (a) ..	50,881	25.69	14,885	7.52	116,405	58.78	15,866	8.01	198,037
Victoria (b) ..	29,901	53.16	2,839	5.05	10,059	17.88	13,447	23.91	56,246
Queensland (b)	23,123	5.39	4,639	1.08	356,735	83.13	44,623	10.40	429,120
S. Aust. (a) ..	13,510	5.55	699	0.29	172,911	71.09	56,125	23.07	243,245
W. Aust. (a) ..	20,694	3.31	11,585	1.85	223,691	35.82	368,618	59.02	624,588
Tasmania (b) ..	6,131	36.54	369	2.20	2,687	16.02	7,591	45.24	16,778
N.T. (a) ..	455	0.14	..	..	158,438	47.28	176,224	52.59	335,117
A.C.T. (b) ..	67	11.13	40	6.62	304	50.55	190	31.70	601
Australia ..	144,762	7.60	35,053	1.84	1,041,230	54.70	682,687	35.86	1,903,732
1950.									
N.S.W. (a) ..	51,051	25.78	14,665	7.40	116,541	58.85	15,780	7.97	198,037
Victoria (b) ..	30,005	53.35	2,759	4.90	9,804	17.43	13,678	24.32	56,246
Queensland (b)	23,483	5.47	4,270	1.00	359,422	83.76	41,945	9.77	429,120
S. Aust. (a) ..	13,690	5.63	583	0.24	173,463	71.31	55,509	22.82	243,245
W. Aust. (a) ..	21,263	3.40	11,514	1.84	226,005	36.19	365,806	58.57	624,588
Tasmania (a) ..	6,143	36.61	365	2.18	2,829	16.86	7,441	44.35	16,778
N.T. (a) ..	455	0.14	..	..	162,561	48.51	172,101	51.35	335,117
A.C.T. (b) ..	64	10.59	41	6.83	331	55.04	165	27.54	601
Australia ..	146,154	7.68	34,197	1.80	1,050,956	55.20	672,425	35.32	1,903,732

(a) At 30th June. (b) At 31st December.

11. **Diagram showing Condition of Public Estate.**—The following diagram shows the condition of the public estate during the year 1950. The square itself represents the total area of Australia, while the relative areas of individual States are shown by the vertical rectangles. The areas alienated from the State; those in process of alienation under various systems of deferred payments; and the areas held under leases or licences are indicated by the differently shaded areas as described in the reference given above the diagram, and the areas unoccupied are left unshaded.



LAND TENURE: AUSTRALIA, 1950

CHAPTER V.

TRANSPORT AND COMMUNICATION.

A. SHIPPING.

§ 1. System of Record.

In the system of recording statistics of oversea shipping, Australia is considered as a unit, and, therefore, only one entry and one clearance is counted for each voyage, without regard to the number of States visited (*see* also Section 5 following, paragraph 1.)

On the arrival at, or departure from, a port in Australia, whether from or for an oversea country or from another port in Australia, the master or agent must "enter" the vessel with the Customs authorities at the port, and supply certain prescribed information in regard to the ship, passengers and cargo. At the end of each month the information so obtained is forwarded to this Bureau. This arrangement has been in operation since 1st July, 1924.

The volume of the vessel, as distinct from the cargo it carries, is recorded in net tons, i.e., the gross tonnage or internal cubical capacity less certain deductions on account of crew spaces, engine room, water ballast and other spaces not used for passengers or cargo. It is thus a rough measure of the capacity of the vessel for cargo or passengers. The unit of measurement is a ton of 100 cubic feet.

Cargo is recorded in tons weight or in tons measurement (40 cubic feet).

From 1st July, 1914 the Trade and Shipping of Australia have been recorded for the fiscal years ending 30th June.

Particulars of vessels exclusively engaged in transporting troops and war materials during the 1939–45 War years are excluded from the following tables of "oversea" and "interstate" shipping movement which, therefore, relate primarily to vessels engaged in normal trade (i.e., carrying part or full cargo for civil purposes), and are strictly comparable with pre-war figures.

§ 2. Oversea Shipping.

1. Total Movement.—The following table shows the number of entrances of oversea steam and motor vessels and sailing vessels (including those with auxiliary power) into Australian ports, and the aggregate net tonnage, during each of the years 1938–39 and 1941–42 to 1949–50:—

OVERSEA SHIPPING: ENTRANCES OF VESSELS DIRECT, AUSTRALIA.

Year.	Steam and Motor.		Sailing.		Total.	
	Number.	Net Tons ('000).	Number.	Net Tons ('000).	Number.	Net Tons. ('000).
1938–39	1,725	6,684	151	27	1,876	6,711
1941–42	1,248	5,166	28	8	1,276	5,174
1942–43	943	3,820	13	4	956	3,824
1943–44	1,085	4,482	9	2	1,094	4,484
1944–45	1,051	4,480	8	4	1,059	4,484
1945–46	1,140	5,260	6	3	1,146	5,263
1946–47	1,187	5,183	15	3	1,202	5,186
1947–48	1,448	6,075	22	8	1,470	6,083
1948–49	1,696	7,475	10	1	1,706	7,476
1949–50	1,931	8,715	11	1	1,942	8,716

The average tonnage per vessel entered has risen from 3,577 tons per vessel in 1938–39 to 4,488 tons in 1949–50.

Particulars of the total oversea movement of shipping for each year from 1822 to 1920–21 will be found in Official Year Book No. 15, p. 507, for each year from 1921–22 to 1930–31 in Official Year Book No. 25, p. 189, and for each of the years 1931–32 to 1937–38 in Official Year Book No. 34, p. 81.

2. **Total Oversea Shipping, States.**—The following table shows, for each State, the number of entrances and clearances of vessels direct from and to oversea countries, and the aggregate net tonnage, during the years 1948–49 and 1949–50 :—

OVERSEA SHIPPING : ENTRANCES AND CLEARANCES OF VESSELS, DIRECT, STATES.

State or Territory.	1948–49.				1949–50.			
	Entrances.		Clearances.		Entrances.		Clearances.	
	Number.	Net Tons ('000).	Number.	Net Tons ('000).	Number.	Net Tons ('000).	Number.	Net Tons ('000).
New South Wales	491	1,931	477	1,885	506	2,137	551	2,293
Victoria	323	1,465	268	1,214	396	1,829	349	1,641
Queensland ..	264	993	308	1,094	264	866	322	1,133
South Australia ..	139	585	125	513	194	845	141	610
Western Australia	458	2,381	572	2,713	545	2,901	573	2,868
Tasmania ..	22	105	23	106	25	114	20	95
Northern Territory	9	16	7	12	12	24	9	22
Total ..	1,706	7,476	1,780	7,537	1,942	8,716	1,965	8,662

3. **Shipping Communication with various Countries.**—Records of the number and tonnage of vessels arriving from and departing to particular countries, as they are invariably made, may be misleading for the reason that the tonnage of a vessel can be recorded against one country only, notwithstanding that the same vessel on the same voyage may carry cargo or passengers to or from Australia from or to several countries. For instance, a mail steamer on a voyage from the United Kingdom to Australia, through the Suez Canal, may call at Marseilles, Genoa, Port Said, Aden and Colombo, yet can be credited only to the United Kingdom, the country where the voyage commenced, to the exclusion of all of the others from the records. Also a number of vessels touch at New Zealand ports on their voyages to and from the United States of America and Canada, but their tonnages are not included in the records of Australian shipping trade with New Zealand. Similarly, the record of shipping engaged in trade between Australia and the United Kingdom via South African ports does not show tonnage to and from South Africa, the whole of it being included in the figures for United Kingdom. In view of this defect, statistics relating to the direction of the shipping to and from Australia are restricted to the following tables in which countries situated on the main trade

routes are grouped together. This grouping into larger geographical divisions to some extent avoids the limitations referred to, except, as already pointed out, in the case of Africa and New Zealand.

OVERSEA SHIPPING : COUNTRY GROUPS FROM WHICH ENTERED OR TO WHICH CLEARED, AUSTRALIA.

Countries.	With Cargo or in Ballast.	1938–39.	1945–46.	1946–47.	1947–48.	1948–49.	1949–50.
			NET TONNAGE ENTERED ('000).				
United Kingdom and European Countries	Cargo	1,878	795	943	1,130	2,060	3,252
	Ballast	121	18	2	6	45	77
New Zealand (*a*) ..	Cargo	767	317	302	303	442	565
	Ballast	242	188	224	223	128	197
Asiatic Countries and Pacific Islands ..	Cargo	2,206	2,071	1,984	2,288	2,778	3,250
	Ballast	256	445	426	933	928	429
Africa (*a*)	Cargo	44	360	370	273	236	277
	Ballast	123	3	47	88	133	33
North and Central America	Cargo	1,059	1,024	861	823	693	602
	Ballast	..	12	1	3	10	8
South America ..	Cargo	10	30	26	11	21	26
	Ballast	5	..	..	2	2	..
Total	Cargo	5,964	4,597	4,486	4,828	6,230	7,972
	Ballast	747	666	700	1,255	1,246	744
	..	6,711	5,263	5,186	6,083	7,476	8,716
			NET TONNAGE CLEARED ('000).				
United Kingdom and European Countries ..	Cargo	2,778	1,205	1,643	1,996	2,785	2,767
	Ballast	13	7	17	..	54	78
New Zealand (*a*) ..	Cargo	901	502	575	565	722	806
	Ballast	37	70	75	11	52	36
Asiatic Countries and Pacific Islands ..	Cargo	1,687	1,548	1,387	1,601	1,786	2,032
	Ballast	743	889	839	980	1,499	2,205
Africa (*a*)	Cargo	172	98	142	172	138	190
	Ballast	6	..	4	3	25	47
North and Central America	Cargo	440	620	409	373	392	391
	Ballast	46	408	108	144	79	83
South America ..	Cargo	12	3	9	..	5	23
	Ballast	..	80	12	..	..	4
Total	Cargo	5,990	3,976	4,165	4,707	5,828	6,209
	Ballast	845	1,454	1,055	1,138	1,709	2,453
	..	6,835	5,430	5,220	5,845	7,537	8,662

(*a*) *See* explanation above.

4. **Nationality of Oversea Shipping.**—Due to war conditions, the proportion of shipping of British nationality progressively declined from 72.82 per cent. in 1938–39 to 43.40 per cent. in 1943–44. On the other hand, the proportion of United States of America shipping visiting Australia during the same period advanced from 2.61 per cent. in 1938–39 to 33.07 per cent. in 1943–44. Thereafter the trend was reversed, and in 1949–50 the proportion of British shipping entered was 69.54 per cent. and of American 5.35 per cent.

Particulars of the nationality of oversea shipping which entered Australia during the five years ended 30th June, 1950 and the year 1938–39 are given in the following table :—

OVERSEA SHIPPING : ENTRANCES ACCORDING TO NATIONALITY OF VESSELS, AUSTRALIA.

('000 Net Tons.)

Nationality.	1938–39.	1945–46.	1946–47.	1947–48.	1948–49.	1949–50.
BRITISH—						
Australian	331	308	153	86	218	250
Canadian	20	106	47	48	69	41
New Zealand	563	89	109	104	147	243
United Kingdom ..	3,744	3,024	3,537	3,988	4,956	5,344
Other British	229	57	107	202	123	183
In Cargo	4,379	3,074	3,420	3,588	4,592	5,559
In Ballast	508	510	533	840	921	502
Total British	4,887	3,584	3,953	4,428	5,513	6,061
Percentage of total ..	72.82	68.10	76.22	72.79	73.74	69.54
FOREIGN—						
Danish..	55	3	17	50	99	143
Dutch	291	132	225	244	269	286
French	108	37	63	76	80	129
German	141	..	..	..	..	..
Italian	68	..	15	9	162	161
Japanese	330	10	..	..	..	..
Norwegian	325	213	218	206	489	690
Swedish	124	116	119	..	151	147
United States of America	175	985	437	571	356	466
Other Foreign	207	183	139	499	357	633
In Cargo	1,585	1,523	1,066	1,240	1,638	2,413
In Ballast	239	156	167	415	325	242
Total Foreign.. ..	1,824	1,679	1,233	1,655	1,963	2,655
Percentage of total ..	27.18	31.90	23.78	27.21	26.26	30.46
In Cargo	5,964	4,597	4,486	4,828	6,230	7,972
Percentage of total ..	88.87	87.35	86.50	79.37	83.33	91.46
In Ballast	747	666	700	1,255	1,246	744
Percentage of total ..	11.13	12.65	13.50	20.63	16.67	8.54
Grand Total	6,711	5,263	5,186	6,083	7,476	8,716

The Australian tonnage which entered Australia from overseas during the year 1949–50 represented 2.87 per cent. of the total tonnage entered and was confined mainly to the New Zealand and Pacific Island trade.

The proportion of oversea shipping tonnage which entered Australia in cargo ranged, in the years shown, between about 80 per cent. and 90 per cent., the lowest percentage being 79.37 in 1947-48 and the highest 91.46 in 1949-50. The proportion of shipping which cleared in cargo, however, has declined from 87.64 per cent. in 1938-39 to 71.68 per cent. in 1949-50, the trend over the period being generally downward.

§ 3. Shipping at Principal Ports.

1. **Total Shipping, Australia.**—The following table shows the total volume of shipping—oversea, interstate and coastwise—which entered the principal ports of Australia during the years 1946-47 to 1949-50 compared with 1938-39. Warships are excluded from the table.

TOTAL SHIPPING: ENTRANCES AT PRINCIPAL PORTS, AUSTRALIA.

Port of Entry.	1938-39.		1946-47.		1947-48.		1948-49.		1949-50.	
	Number.	Net Tons ('000).	Number.	Net Tons ('000).	Number.	Net Tons ('000).	Number.	Net Tons ('000.)	Number.	Net Tons ('000.)
New South Wales—										
Sydney ..	7,384	11,650	3,628	5,837	3,750	6,225	4,142	7,590	3,927	8,149
Kembla ..	850	1,225	361	932	351	928	335	757	403	971
Newcastle ..	4,273	5,099	2,399	3,293	2,320	3,430	2,367	3,411	2,119	3,190
Victoria—										
Melbourne ..	3,384	8,537	1,821	4,835	2,012	5,599	2,203	7,034	2,328	8,268
Geelong ..	486	850	138	402	184	605	144	522	318	810
Queensland—										
Brisbane ..	1,472	4,916	517	1,628	560	1,820	712	2,695	783	2,840
Bowen ..	188	336	104	181	70	147	83	189	67	139
Cairns ..	725	790	227	292	239	350	245	430	238	446
Gladstone ..	155	526	57	128	47	144	67	194	60	180
Mackay ..	219	546	67	129	49	117	69	195	70	197
Rockhampton ..	252	596	55	97	47	111	49	98	58	117
Thursday Island	158	303	46	9	85	12	66	13	74	15
Townsville ..	641	1,473	291	407	216	494	213	657	237	696
South Australia—										
Adelaide ..	2,988	5,524	2,440	2,788	2,595	3,319	2,939	4,129	2,686	4,843
Lincoln ..	438	493	395	459	440	537	428	561	353	449
Pirie	619	815	303	630	301	730	286	742	268	642
Wallaroo ..	281	220	165	140	224	193	224	238	239	210
Whyalla ..	680	1,037	448	1,111	476	1,137	332	837	373	1,033
Western Australia—										
Fremantle ..	846	4,012	571	2,583	738	3,284	946	4,592	1,010	5,207
Albany ..	125	511	44	142	49	200	37	136	35	114
Bunbury ..	107	240	50	145	62	184	68	194	56	175
Carnarvon ..	115	183	73	96	78	99	79	98	99	135
Geraldton ..	132	291	69	177	94	239	97	248	94	246
Tasmania—										
Hobart ..	616	1,153	270	420	293	540	303	565	279	646
Burnie ..	577	781	165	187	163	227	163	257	106	268
Devonport ..	492	476	206	211	183	223	175	215	217	211
Launceston ..	460	502	301	281	290	292	308	273	324	282
Northern Territory—										
Darwin ..	176	184	26	57	33	55	28	49	42	65

2. **Total Shipping—Australia, New Zealand and United Kingdom.**—The following table shows the total shipping tonnage which entered the principal ports of Australia during 1949–50, of New Zealand during 1949 and of the United Kingdom during 1950.

TOTAL SHIPPING: ENTRANCES AT PORTS, AUSTRALIA, NEW ZEALAND AND THE UNITED KINGDOM.

Port.	Net Tonnage Entered ('000).	Port.	Net Tonnage Entered ('000).
AUSTRALIA—		ENGLAND AND WALES—	
Melbourne (Vic.)	8,268	London	26,724
Sydney (N.S.W.)	8,149	Liverpool (inc. Birkenhead)	16,212
Fremantle (W.A.)	5,207	Southampton	12,169
Adelaide (S.A.)	4,843	Tyne Port	7,501
Newcastle (N.S.W.)	3,190	Hull	5,571
Brisbane (Qld.)	2,840	Swansea	4,373
Whyalla (S.A.)	1,033	Bristol	4,150
Kembla (N.S.W.)	971	Manchester (inc. Runcorn)	3,736
Geelong (Vic.)	810	Cardiff	3,724
Townsville (Qld.)	696	Plymouth	1,743
Hobart (Tas.)	646		
Pirie (S.A.)	642		
Lincoln (S.A.)	449		
Cairns (Qld.)	446		
Launceston (Tas.)	282		
Burnie (Tas.)	268		
Geraldton (W.A.)	246		
Devonport (Tas.)	211	SCOTLAND—	
		Glasgow	5,638
NEW ZEALAND—			
Wellington	3,268		
Lyttleton	1,969		
Auckland	1,913		
Dunedin	786		
Napier	321		
New Plymouth	303	NORTHERN IRELAND—	
Bluff	299	Belfast	5,845

§ 4. Vessels Built and Registered.

1. **Vessels Built.**—The following table shows the number and tonnage of vessels built in Australia during each of the calendar years 1938 and 1946 to 1950, so far as such information can be ascertained from the Shipping Registers of the various States. The Merchant Shipping Act, under which vessels are registered in Australia, does not, however, make it compulsory to register vessels under 15 tons burden if engaged in river or coastal trade. Larger vessels are also exempt from registration if not engaged in trade. Yachts and small trading vessels may be, and frequently are, registered at the request of the owners.

VESSELS BUILT IN AUSTRALIA.

Year.	Steam.			Motor.(a)			Sailing.			Total.		
	No.	Tonnage.		No.	Tonnage.		No.	Tonnage.		No.	Tonnage.	
		Gross.	Net.		Gross.	Net.		Gross.	Net.		Gross.	Net.
1938 ..	..	..	..	11	721	394	..	..	..	11	721	394
1946 ..	4	9,448	4,571	19	981	678	5	240	160	28	10,669	5,409
1947 ..	5	16,190	8,391	25	1,426	912	8	206	296	38	17,822	9,599
1948 ..	3	14,583	8,604	9	1,376	741	..	..	..	12	15,959	9,345
1949 ..	2	9,673	5,427	9	726	383	..	..	..	11	10,399	5,810
1950 ..	2	8,005	4,141	9	1,213	648	..	..	..	11	9,218	4,789

(a) Includes vessels with auxiliary motors.

2. **Vessels Registered.**—The following table shows the number and net tonnage of steam, sailing and other vessels on the register of each State on the 31st December, 1950:—

VESSELS ON THE STATE REGISTERS, 31st DECEMBER, 1950.

State or Territory.	Steam and Motor.		Sailing.				Barges, Hulks, Dredges, &c., not Self-propelled.		Total.	
			Propelled by Sail Only.		Fitted with Auxiliary Power.					
	No.	Net Tons.	No.	Net Tons.	No.	Net Tons.	No.	Net Tons.	No.	Net Tons.
New South Wales	488	70,752	159	5,911	101	1,447	38	9,274	786	87,384
Victoria ..	182	159,802	46	563	45	1,507	41	16,819	314	178,691
Queensland ..	77	26,729	62	1,166	57	808	12	1,536	208	30,239
South Australia ..	85	32,422	15	307	36	1,869	38	5,833	174	40,431
Western Australia	45	4,313	229	3,324	70	1,724	5	396	349	9,757
Tasmania ..	38	3,798	45	1,647	75	2,067	1	382	159	7,894
Northern Territory	..	..	16	154	3	50	..	..	19	204
Total ..	915	297,816	572	13,072	387	9,472	135	34,240	2,009	354,600

3. **World Shipping Tonnage.**—Previous issues of the Official Year Book have contained tables, compiled from *Lloyd's Register of Shipping*, showing the number and gross tonnages of steam, motor and sailing vessels owned by the various maritime countries of the world. The tables are not repeated in this issue, but the following information is derived from the same source. At 1st July, 1950, the total steamers, motor ships and sailing vessels of 100 gross tons and upwards throughout the world amounted to 31,732 with a gross tonnage of 85,302,000. Of these totals, steamers numbered 19,254 for 63,543,000 gross tons, motorships, 11,598 for 21,040,000 gross tons and sailing vessels and barges 880 for 719,000 gross tons. In addition, there were 2,158 oil tankers of 1,000 gross tons and upwards with a gross tonnage of 16,866,000. Australian steamers, motorships and sailing vessels, 355 for 541,000 gross tons, constituted 1.12 per cent. and 0.63 per cent. respectively of the total numbers and tonnage. There were no Australian oil tankers of 1,000 gross tons and upwards registered.

§ 5. Interstate Shipping.

1. **System of Record.**—*Interstate Shipping* comprises two elements: (*a*) Vessels engaged solely in interstate trade: and (*b*) Vessels trading between Australia and oversea countries and in the course of their voyage proceeding from one State to another. (It should be mentioned that these vessels, except under special circumstances, do not engage in interstate carrying.) No complexity enters into the record of those in category (*a*), but with regard to the method of recording the movements of the oversea vessels (*b*) some explanation is necessary. Each State desires that its shipping statistics (which are prepared in this Bureau) should show in full its shipping communication with oversea countries, but at the same time it is necessary to avoid any duplication in the statistics for Australia as a whole. In order to meet these dual requirements, a vessel arriving in any State from an oversea country—say United Kingdom—*via* another State, is recorded in the second State as from United Kingdom *via States*, thus distinguishing the movement from a *direct* oversea entry. Continuing the voyage, the vessel is again recorded for the statistics of the third State as from United Kingdom *via* other States. On an inward voyage the *clearance* from the first State to the second State is a *clearance* interstate, and is included with interstate tonnage in conformity with the pre-federation practice of the States, and to preserve the continuity of State statistics. Thus, movements of ships which are, from the standpoint of Australia as a whole, purely coastal movement, must for the individual States be recorded as "Oversea *via* other States" or "Interstate" according to the direction of the movement. The significance of the record of these movements will be more clearly seen from the following tabular presentation of the inward and outward voyages to and from Australia of a mail steamer which, it is presumed, reaches Fremantle (Western Australia) and then proceeds to the terminal port of the voyage—Sydney (New South Wales)—*via* South Australia and Victoria. From the terminal port the vessel will commence the outward voyage, and retrace its inward track.

ITINERARY OF AN OVERSEA VESSEL ON AUSTRALIAN COAST.

Particulars.	Recorded as—		
	For the State and for Australia.	For the States.	
Inward Voyage—			
Enters Fremantle from United Kingdom	Oversea direct		
Clears Fremantle for Adelaide	..	Interstate direct	
Enters Adelaide from United Kingdom *via* Fremantle	..	..	Oversea *via* States
Clears Adelaide for Melbourne	..	Interstate direct	
Enters Melbourne from United Kingdom *via* Adelaide	..	..	Oversea *via* States
Clears Melbourne for Sydney	..	Interstate direct	
Enters Sydney from United Kingdom *via* Melbourne	..	..	Oversea *via* States
Outward Voyage—			
Clears Sydney for United Kingdom *via* Melbourne	..	..	Oversea *via* States
Enters Melbourne from Sydney	..	Interstate direct	
Clears Melbourne for United Kingdom *via* Adelaide	..	..	Oversea *via* States
Enters Adelaide from Melbourne	..	Interstate direct	
Clears Adelaide for United Kingdom *via* Fremantle	..	..	Oversea *via* States
Enters Fremantle from Adelaide	..	Interstate direct	
Clears Fremantle for United Kingdom	Oversea direct		

From the method outlined above, the requirements for Australia and for the individual States are ascertained as follows. (*a*) The aggregate of all ships recorded for each State as "Oversea *direct*" gives the oversea shipping for Australia as a whole (*b*) the aggregate for all ships recorded in any State as "Oversea *direct*" plus those recorded as "Oversea *via States*" gives the total *oversea shipping* for that State; and (*c*) the aggregate for all ships recorded as "Oversea *via States*" may also be used, together with those recorded as "Interstate *direct*," to furnish figures showing the total interstate *movement* of shipping.

It should be remembered, however, that all oversea vessels do not follow the same itinerary as the vessel in the table above.

2. **Interstate Movement.**—(i) *Interstate direct.* The following table shows the number of entrances and the tonnage of vessels recorded into each State from any other State (including *oversea* vessels on interstate direct voyages) during each of the years 1945–46 to 1949–50 compared with the year 1938–39. The shipping of the Murray River, between the States of New South Wales, Victoria and South Australia, is excluded :—

INTERSTATE MOVEMENT OF SHIPPING : ENTRANCES OF VESSELS INTERSTATE DIRECT.

State or Territory.	1938–39.	1945–46.	1946–47.	1947–48.	1948–49.	1949–50.
			NUMBER.			
New South Wales	2,183	1,112	1,136	1,133	1,227	1,176
Victoria	2,243	1,104	1,209	1,224	1,288	1,329
Queensland	639	303	340	306	360	379
South Australia	1,036	482	647	678	756	710
Western Australia ..	382	221	256	326	465	420
Tasmania	1,301	695	706	717	711	765
Northern Territory ..	39	6	14	16	15	27
Total	7,823	3,923	4,308	4,400	4,822	4,806
			NET TONS ('000).			
New South Wales	6,205	2,439	3,041	2,977	3,636	3,570
Victoria	4,751	1,815	2,568	2,690	3,067	3,245
Queensland	1,730	587	728	587	927	987
South Australia	3,322	1,247	1,871	1,963	2,578	2,687
Western Australia.. ..	2,019	1,045	1,165	1,395	2,164	2,167
Tasmania	1,770	674	739	772	668	746
Northern Territory ..	103	20	28	25	26	36
Total	19,900	7,827	10,140	10,409	13,066	13,438

From 1938–39 the total net tonnage of interstate shipping declined steadily each year up to 1942–43, when it represented only 38 per cent. of the total for the pre-war year. It remained practically unchanged during the next three years, but increased by over 29 per cent. in 1946–47. There was little change in 1947–48, the tonnage for that year being about 52 per cent. of the 1938–39 total. By 1949–50 the total had risen to 68 per cent. of the 1938–39 total.

(ii) *Oversea via States.* To ascertain the aggregate movement of shipping between the States, including the total interstate movements of oversea vessels, the figures in the following table which show the number of entrances and clearances of vessels to and from oversea countries via other Australian States and the aggregate tonnage, must be added to those in the preceding table :—

INTERSTATE MOVEMENT OF SHIPPING : ENTRANCES AND CLEARANCES OF VESSELS OVERSEA VIA OTHER AUSTRALIAN STATES.

State or Territory.	Entrances.		Clearances.		Total.	
	Number.	Net Tons ('000).	Number.	Net Tons ('000).	Number.	Net Tons ('000).
1948–49.						
New South Wales ..	439	2,375	466	2,314	905	4,689
Victoria	457	2,523	410	2,095	867	4,618
Queensland.. ..	191	1,045	169	904	360	1,949
South Australia ..	212	1,202	237	1,201	449	2,403
Western Australia ..	20	88	27	142	47	230
Tasmania	72	352	72	335	144	687
Northern Territory ..	..	..	1	6	1	6
Total ..	1,391	7,585	1,382	6,997	2,773	14,582
1949–50.						
New South Wales ..	560	3,050	460	2,520	1,020	5,570
Victoria	590	3,232	417	2,296	1,007	5,528
Queensland.. ..	224	1,224	181	931	405	2,155
South Australia ..	302	1,684	269	1,460	571	3,144
Western Australia ..	34	158	8	34	42	192
Tasmania	72	324	87	410	159	734
Northern Territory ..	..	..	1	1	1	1
Total ..	1,782	9,672	1,423	7,652	3,205	17,324

Oversea vessels moving interstate are with few exceptions not engaged in the active interstate trade of Australia, but are merely proceeding to the several States in continuation of their oversea voyages.

(iii) *Total, Australia.* The following table shows the total interstate movement of shipping, including oversea vessels travelling oversea via States and interstate direct, for each of the years 1938–39 and 1945–46 to 1949–50 :—

INTERSTATE MOVEMENT OF SHIPPING : TOTAL, AUSTRALIA.

Year.	Entrances.		Clearances.	
	Number.	Net Tons ('000).	Number.	Net Tons ('000).
1938–39	9,603	29,977	9,669	30,000
1945–46	4,456	10,562	4,491	10,584
1946–47	5,122	14,181	5,173	14,258
1947–48	5,557	16,246	5,594	16,386
1948–49	6,213	20,651	6,212	20,553
1949–50	6,588	23,110	6,710	23,296

(iv) *Total, States.* The following table shows, for each State, the number of entrances and clearances of vessels from and for other States, and the aggregate tonnage, during the years 1948–49 and 1949–50, and includes the interstate movements of oversea vessels :—

INTERSTATE MOVEMENT OF SHIPPING : TOTAL, STATES.

State or Territory.	1948–49.				1949–50.			
	Entrances.		Clearances.		Entrances.		Clearances.	
	Number.	Net Tons ('000).	Number.	Net Tons ('000).	Number.	Net Tons ('000).	Number.	Net Tons ('000).
New South Wales	1,666	6,012	1,689	5,937	1,736	6,620	1,750	6,567
Victoria ..	1,745	5,590	1,811	5,878	1,919	6,476	1,965	6,661
Queensland ..	551	1,971	547	1,905	603	2,211	567	1,932
South Australia ..	968	3,780	975	3,833	1,012	4,372	1,065	4,587
Western Australia	485	2,252	378	1,965	454	2,326	433	2,404
Tasmania ..	783	1,020	796	1,007	837	1,069	898	1,101
Northern Territory	15	26	16	28	27	36	32	44
Total ..	6,213	20,651	6,212	20,553	6,588	23,110	6,710	23,296

3. **Shipping Engaged Solely in Interstate Trade.**—The following table shows, for each State, the number of entrances direct from other States, of vessels engaged solely in interstate trade during the years 1948–49 and 1949–50, together with the net tonnage.

SHIPPING ENGAGED SOLELY IN INTERSTATE TRADE : ENTRANCES.

State or Territory.	1948–49.		1949–50.	
	Number.	Net Tons ('000).	Number.	Net Tons ('000).
New South Wales	756	1,530	762	1,647
Victoria	920	1,147	980	1,279
Queensland	212	404	240	427
South Australia	418	888	423	1,104
Western Australia	103	235	92	244
Tasmania	668	522	705	527
Northern Territory	14	21	26	34
Total	3,091	4,747	3,228	5,262

4. **Interstate and Coastal Shipping Services.**—The following table shows particulars, so far as they are available, of all vessels engaged in regular interstate or coastal services at the end of each of the years 1946 to 1950 compared with the year 1938 :—

INTERSTATE AND COASTAL SHIPPING SERVICES : AUSTRALIA.

Particulars.		1938.	1946.(*b*)	1947.(*b*)	1948.(*b*)	1949.(*b*)	1950.(*b*)
Number of companies operating		30	26	26	25	24	24
Number of vessels		167	158	169	163	161	164
Tonnage	Gross	366,182	480,089	502,854	478,614	490,524	471,110
	Net	200,131	275,921	285,160	271,452	276,178	262,312
Horse-power (Nominal) ..		39,598	41,210	49,505	43,463	42,147	55,452
Number of passengers for which licensed (*a*)	1st class ..	3,909	1,808	1,481	1,443	1,475	2,003
	2nd class and steerage ..	1,719	627	366	339	340	539
Complement of Crew ..	Master and officers ..	557	585	616	634	630	606
	Engineers	606	644	684	672	673	695
	Crew ..	4,663	4,732	4,649	4,544	4,532	4,767

(*a*) Excluding purely day passenger accommodation. (*b*) Includes vessels under the control of the Australian Shipping Board.

§ 6. Shipping Cargo.

1. **Oversea and Interstate Cargo.**—(i) *Australia.* The table hereunder shows the aggregate tonnage of oversea cargo discharged and shipped and the tonnage of interstate cargo shipped in Australian ports for the years 1945–46 to 1949–50 compared with the year 1938–39. Cargo which was stated in cubic feet has been converted to tons measurement on the basis of 40 cubic feet to the ton.

SHIPPING CARGO MOVEMENT : AUSTRALIA.

('000.)

Year.	Oversea Cargo.				Interstate Cargo.	
	Discharged.		Shipped.		Shipped.	
	Tons Weight.	Tons Meas.	Tons Weight.	Tons Meas.	Tons Weight.	Tons Meas.
1938–39 ..	4,208	2,191	5,138	1,093	7,221	1,731
1945–46 ..	4,600	1,649	2,462	1,470	6,216	1,213
1946–47 ..	4,171	1,394	3,097	1,357	7,264	1,272
1947–48 ..	4,982	1,916	4,532	1,245	7,109	1,261
1948–49 ..	5,849	2,572	5,423	1,366	6,230	1,173
1949–50 ..	7,686	3,576	5,061	1,388	6,419	1,207

(ii) *Principal Ports.* The following table shows the tonnage of oversea and interstate cargo discharged and shipped at principal ports during 1949–50. Comparable figures for the year 1948–49 appear in *Transport and Communication Bulletin* No. 40.

CARGO DISCHARGED AND SHIPPED AT PRINCIPAL PORTS, 1949 50.

(Tons Weight and Tons Measurement Combined—'000.)

Port.	Discharged.			Shipped.		
	Oversea.	Interstate.	Total.	Oversea.	Interstate.	Total.
Sydney	3,168	806	3,974	1,591	514	2,105
Kembla	114	999	1,113	88	325	413
Newcastle	283	1,171	1,454	289	2,247	2,536
Other	..	..	..	32	11	43
Total, New South Wales	3,565	2,976	6,541	2,000	3,097	5,097
Melbourne	3,556	1,867	5,423	1,028	680	1,708
Geelong	395	148	543	481	12	493
Portland	44	4	48	11	..	11
Total, Victoria ..	3,995	2,019	6,014	1,520	692	2,212
Brisbane	813	453	1,266	398	162	560
Cairns	33	26	59	113	99	212
Townsville	63	45	108	113	71	184
Other	38	59	97	217	165	382
Total, Queensland ..	947	583	1,530	841	497	1,338
Adelaide	1,049	954	2,003	426	398	824
Pirie	101	83	184	231	160	391
Wallaroo	40	3	43	152	22	174
Whyalla	..	165	165	8	1,966	1,974
Other	69	54	123	151	32	183
Total, South Australia ..	1,259	1,259	2,518	968	2,578	3,546
Fremantle	1,117	392	1,509	578	73	651
Bunbury	45	..	45	144	34	178
Geraldton	47	..	47	145	8	153
Other	42	30	72	45	26	71
Total, Western Australia	1,251	422	1,673	912	141	1,053
Hobart	170	390	560	142	214	356
Devonport	13	42	55	8	76	84
Launceston	..	167	167	32	120	152
Other	15	84	99	25	205	230
Total, Tasmania ..	198	683	881	207	615	822
Darwin (Northern Territory)	48	24	72	..	6	6
Total, AUSTRALIA ..	11,263	7,966	19,229	6,448	7,626	14,074

2. **Oversea Cargo by Nationality of Vessels Carrying.**—The following table shows the total oversea cargo discharged and shipped combined, according to the nationality of the vessels carrying, during the years 1945–46 to 1949–50 compared with the year 1938–39 :—

OVERSEA CARGO DISCHARGED AND SHIPPED—NATIONALITY OF VESSELS : AUSTRALIA.

(Tons Weight and Tons Measurement Combined—'000.)

Vessels Registered at Ports in—	1938–39.	1945–46.	1946–47.	1947–48.	1948–49.	1949–50.
British Countries—						
Australia	416	433	267	286	306	237
United Kingdom ..	7,731	4,982	6,957	8,293	10,167	11,468
Canada	53	351	121	85	132	83
New Zealand	503	243	233	203	226	253
Other British	446	167	187	425	305	370
Total British	9,149	6,176	7,765	9,292	11,136	12,411
Percentage of Total ..	72.43	60.66	77.51	73.30	73.21	70.08
Foreign Countries—						
Denmark	184	22	38	105	265	378
France	189	47	90	95	123	187
Germany	370	..	..	..	..	..
Italy	84	..	37	18	217	176
Japan	260	..	..	..	..	..
Netherlands (*a*)	573	234	327	512	531	646
Norway	834	578	547	566	1,149	1,712
Sweden	354	379	314	408	453	589
United States of America ..	159	2,286	659	1,083	688	397
Other Foreign	475	459	241	597	649	1,215
Total Foreign	3,482	4,005	2,253	3,384	4,075	5,300
Percentage of Total ..	27.57	39.34	22.49	26.70	26.79	29.92
Grand Total ..	12,631	10,181	10,018	12,676	15,211	17,711

(*a*) Includes Netherlands East Indies.

Owing to war conditions the percentage of cargo carried in British vessels decreased from 72.43 in 1938–39 to 41.37 in 1943–44, but increased to 77.51 in 1946–47. It has since declined, reaching 70.08 in 1949–50.

§ 7. Control of Shipping.

1. **War-time Control.**—An account of the action taken by the Commonwealth Government to control and regulate shipping throughout Australian waters during the 1939–45 War is given in Official Year Book No. 36, pp. 121–130.

2. **Post-war Control and Developments.**—On 1st January, 1946, the Shipping Co-ordination Regulations were substantially amended to provide for a consolidation, within an Australian Shipping Board, of the war-time shipping authorities, notably the Shipping Control Board, Commonwealth Government Ships Chartering Committee, Central Cargo Control Committee and the Salvage Board. In consequence, a contraction of war emergency shipping administration was effected, with a tapering off of war-time powers and controls being achieved. The Allied Consultative Shipping Council, the

British-American-Australian Shipping Sub-Committee, and the Port Equipment and Development Committee lapsed towards the end of 1945. The Allied Materials Handling Standing Committee continued, however, developing into the Commonwealth Handling Equipment Pool.

In March, 1947, legislation established a permanent Stevedoring Industry Commission to continue in peace-time the functions performed during the war by the Commission established under National Security legislation. In June, 1949, legislation was enacted to abolish the Stevedoring Industry Commission on which employers and employees were represented, and established in its place a Stevedoring Industry Board of three members, which attends to administrative matters formerly under the control of the Commission, such as the operation of labour bureaux at ports, payment of attendance money and provision of amenities, etc. The industrial functions which previously came within the province of the Commission are being dealt with by a single Judge of the Commonwealth Court of Conciliation and Arbitration.

The Maritime Industry Commission established during the war years under National Security legislation continues to function and consideration is being given to its establishment on a permanent basis.

As the immediate post-war years were marked by a continued shortage of coastal shipping, it was necessary not only to continue requisitioning of merchant shipping up to 18th August, 1947, but to supplement Australian coastal shipping with as many as 26 oversea chartered vessels obtained through the British Ministry of Transport. During these two post-war years, however, the majority of vessels operating under Defence Services Control were returned after refitting for commercial employment, and on 18th August, 1947, all requisitioned vessels, with a few exceptions, had been returned to shipowners.

In March, 1949, the Commonwealth Parliament passed the Shipping Act 1949 which was designed to establish the Australian Shipping Board on a permanent basis, to license shipbuilding, and to operate a Commonwealth Shipping Line on the Australian coast and later in oversea trades. The Act has not been proclaimed. In the meantime, the Commonwealth-owned vessels are being operated by the Australian Shipping Board under war-time regulations continued by the Defence (Transitional Provisions) Regulations.

As at 1st November, 1951, the Australian Shipping Board operated 35 vessels totalling 148,980 gross tons of which seven vessels totalling 47,030 gross tons were operated on time charter from private owners. The Government-owned tonnage, totalling 108,485 gross tons (of which four vessels totalling approximately 6,500 gross tons were on charter to other companies), comprised thirteen " A " or " River " class vessels of an average of 5,197 gross tons, two " B " class vessels of an average of 3,952 gross tons, nine " D " class vessels of an average of 2,334 gross tons, five " E " class vessels of an average of 584 gross tons plus three other vessels—*Nyora* of 1,209 gross tons, *Ransdorp* of 469 gross tons and *Tyalla* (formerly *Kefalonia*) of 7,327 gross tons. The *Tyalla* is still registered in the United Kingdom.

In the international sphere, ratification is still being awaited from 21 ship-owning nations of a Convention establishing an Inter-Governmental Maritime Consultative Organization within the framework of United Nations. The major objectives of this Organization are to provide machinery for co-operation among Governments with shipping engaged in international trade, and to encourage the removal by Governments of discriminatory action and unnecessary restrictions regarding such shipping.

This Organization is designed to replace the United Maritime Consultative Council which was established on a tentative basis after the expiry of the war-time United Maritime Authority and Combined Adjustment Board.

§ 8. Miscellaneous.

1. **Lighthouses.**—A list of the principal lighthouses on the coast of Australia, giving details of the location, number, colour, character, period, candle-power and visibility of each light so far as particulars were available was published in *Transport and Communication Bulletin* No. 14.

2. **Distances by Sea.**—The distances by sea between the ports of the capital cities of Australia and the most important ports in other countries which trade with Australia are shown in *Transport and Communication Bulletin* No. 41.

3. **Shipping Freight Rates.**—The *Quarterly Summary of Australian Statistics* shows a list of the ruling freight rates for general merchandise in respect of both oversea and interstate shipments. At 31st December, 1950, the rate for general merchandise from Australia to United Kingdom and Continent was 135s. od. per ton weight or measurement while the rates for wheat (bagged) and wool (greasy) were respectively 97s. 6d. per ton weight and 2.238d. less 7 per cent. per lb. These rates, which are expressed in sterling, are subject to an adjustment of 25½ per cent. when freight is prepaid in Australia.

4. **Depth of Water at Main Ports.**—A table, compiled from information supplied by the Director of Navigation, showing the depth of water available and tides at principal ports of Australia at 1st January, 1950, is included in *Transport and Communication Bulletin* No. 41.

5. **Shipping Casualties.**—Courts of Marine Inquiry are constituted by a Magistrate assisted by skilled assessors, and, when necessary, are held at the principal port in each State and at Launceston (Tasmania). Such courts have power to deal with the certificates of officers who are found at fault. Particulars of shipping casualties reported on or near the coast during the years 1946 to 1950 are shown in the table below. This information also was furnished by the Director of Navigation :—

TOTAL SHIPPING CASUALTIES AND LOSSES : AUSTRALIA.

Year.	Total Losses of Vessels.			Total Casualties to Vessels.		
	Number.	Net Tons.	Lives Lost.	Number.	Net Tons.	Lives Lost.
1946 ..	..	..	..	173	394,582	..
1947 ..	2	396	..	151	442,685	10
1948 ..	1	113	..	206	652,047	..
1949 ..	3	3,705	12	155	435,935	12
1950 ..	4	9,735	20	191	611,084	22

6. **Commonwealth Navigation and Shipping Legislation.**—An account in some detail of the Commonwealth navigation and shipping legislation is contained in Official Year Book No. 17 (pp. 1053–5). Later issues contained information on amendments relating to permits to engage in the coasting trade for ships other than those licensed for that trade, to the provision for the carriage of wireless equipment, and to the giving of effect to the provisions of certain maritime conferences, notably those dealing with the safety of life at sea and load lines.

7. **Ports and Harbours.**—A report in two volumes on "Transport in Australia," with special reference to Ports and Harbours facilities, was submitted to the Commonwealth Government by Sir George Buchanan and published as two Parliamentary Papers (No. 86 printed 14th March, 1927, and No. 108 printed 9th May, 1927.)

B. RAILWAYS.

§ 1. General.

1. **Introduction.**—The policy of Government ownership and control of railways has been adopted in each State and at 30th June, 1950 only 647 route-miles of the 27,626 open for general traffic in Australia were privately owned, while 24,778 route-miles were owned by the State Governments and 2,201 route-miles by the Commonwealth Government. In the following tables details of the four lines owned by the Commonwealth are grouped and shown with the totals for the various State-owned systems. Separate particulars for each Commonwealth line are shown in *Transport and Communication Bulletin* No. 41, issued by this Bureau, and also in Official Year Book No. 31, p. 125, et seq.

2. **Railway Communication in Australia.**—An account of the progress of railway construction in Australia since the opening of the first line in 1854 will be found in Official Year Book No. 6, p. 681. Further information regarding railway communication in Australia is given in Official Year Book No. 22, pp. 259–61.

3. **Standardization of Railway Gauges.**—A summary of the report and recommendations relating to the standardization of Australia's railway gauges on the basis of a 4 ft. 8½ in. gauge, made in March, 1945 at the request of the Commonwealth Government by Sir Harold Clapp, Director-General of Land Transport, Commonwealth Department

of Transport, is contained in Official Year Book No. 37, together with an outline of the agreement between the Commonwealth Government and the States of New South Wales, Victoria and South Australia regarding the standardization of railway gauges in their respective States (Chapter V.—Transport and Communication, pp. 146–9). The agreement, which was signed in 1946, was ratified by the Governments of the Commonwealth, of Victoria and of South Australia, but not by the New South Wales Government. After some time had elapsed and New South Wales had failed to ratify the agreement, the Commonwealth Government decided to enter into a separate agreement with South Australia, and the necessary legislation was enacted in 1949 by each Government concerned. Action was also taken to invite the Victorian Government to discuss the subject of a separate agreement, but to date there has been no legislative action. The Commonwealth–South Australia Agreement provides for the same standardization work to be carried out in South Australia as would have been carried out had New South Wales ratified the original Commonwealth—Three States Agreement, and that over a period of years the Commonwealth should contribute 70 per cent. and South Australia be responsible for the remaining 30 per cent. of the estimated cost of £24,000,000.

4. **Government Railways. Lines under Construction and Lines Authorized, 1948–49 and 1949–50.**—(i) *Lines under Construction.* In spite of the great extensions of State railways since 1875 and also the construction of various railways by the Commonwealth Government, there are still, in some States, immense areas of country which are as yet practically undeveloped, and in which little in the nature of permanent settlement has been accomplished. The general policy of the States was to extend the existing lines inland in the form of light railways as settlement increased, and while it is true that lines which were not likely to be commercially successful in the immediate future have been constructed from time to time for the purpose of encouraging settlement, the general principle that the railways should be self-supporting was kept in view.

(*a*) *New South Wales.* Construction work proceeded during 1948–49 and 1949–50 on the Sandy Hollow to Maryvale line (approximately 147 miles). In April, 1950, work on this line was temporarily suspended and the employees, as well as plant and portable buildings, were transferred to work on other lines. Work had not been resumed by the end of the year. Further progress was made during 1948–49 and 1949–50 with the connecting link between St. James and Wynyard stations of the underground railway of Sydney. Surveys and boring operations were continued during 1948–49 and 1949–50 in connexion with the eastern and southern suburban electric railways, but boring operations were suspended on the south-eastern suburbs railway. Trial surveys were completed during 1948–49 on the proposed Inverell-Iluka railway line. On 3rd April, 1950 an Act authorizing the construction of a railway line from Glen Innes to Inverell was assented to by the Governor. The permanent survey of the line has been started from both terminal stations. A trial survey was made and estimates were prepared during 1949 for the proposed Thirlmere to Burragorang railway line. During 1949–50 the survey was commenced and completed for ten miles of the total length of approximately thirteen miles.

(*b*) *Other.* At 30th June, 1950 no construction work on new lines was in progress in Victoria, Queensland, Western Australia, Tasmania, nor for the Commonwealth Government. In South Australia construction of the Kowulka branch railway (5 miles) was authorized in 1948; it was under construction during 1948–49 and completed in 1949–50.

(ii) *Lines Authorized for Construction.* In the States of New South Wales, Victoria, Queensland, South Australia and Western Australia at the 30th June, 1950 there were certain lines authorized for construction but not commenced. These lines were authorized many years ago, some as early as 1910 and none later than 1933. Particulars may be found in Official Year Book No. 36, p. 133. There have been no later authorizations.

5. **Grafton-South Brisbane (Uniform Gauge) Line.**—For particulars of the construction of the Grafton–South Brisbane (Uniform Gauge) Line completed in 1930, which constituted the first step towards uniform gauge railway communication between the capitals of the mainland States, *see* Official Year Book No. 31, p. 122 and later issues.

6. **Mileage Open for Traffic, all Lines.**—(i) *General.* Almost all the railways open for general traffic in Australia are owned and controlled by the State or Commonwealth Governments. Private lines have been laid down for the purpose of opening up forest lands, mining districts or sugar areas. These lines are not generally used for the

conveyance of passengers or the public conveyance of goods, and it should be understood that the private lines included in the tables below form only a small part of all private railways in Australia.

The following table shows the route-mileage of Commonwealth, State and private lines open for general traffic in each State at different periods since the inauguration of railways in Australia in 1854 up to the year 1949–50 :—

GOVERNMENT AND PRIVATE RAILWAYS : MILEAGE OPEN.

(Miles.)

Year.	N.S.W.	Vic.	Q'ld.	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
1855 ..	14	2	..	7	..	..	..	..	23
1861 ..	73	114	..	56	..	..	..	..	243
1871 ..	358	276	218	133	12	45	..	..	1,042
1881 ..	1,040	1,247	800	845	92	168	..	..	4,192
1890–91 ..	2,263	2,763	2,205	1,666	656	425	145	..	10,123
1900–01 ..	2,926	3,238	2,904	1,736	1,984	618	145	..	13,551
1910–11 ..	4,027	3,574	4,390	1,993	3,208	675	145	..	18,012
1920–21 ..	5,402	4,337	7,013	3,463	4,906	877	199	5	26,202
1930–31 ..	6,160	4,742	6,795	3,932	4,911	806	317	5	27,668
1940–41 ..	6,196	4,784	6,750	3,861	5,112	758	490	5	27,956
1945–46 ..	6,182	4,761	6,702	3,850	5,112	759	490	5	27,861
1946–47 ..	6,182	4,761	6,702	3,850	5,079	758	490	5	27,827
1947–48 ..	6,182	4,738	6,696	3,850	5,079	731	490	5	27,771
1948–49 ..	6,167	4,710	6,696	3,850	5,052	731	490	5	27,701
1949–50 ..	6,167	4,700	6,695	3,856	4,983	730	490	5	27,626

(ii) *Government and Private Lines Separately.* The next table shows for each State (*a*) the length of lines open for traffic owned by the State Government and by the Commonwealth Government in that State and ; (*b*) the length of private lines available for general use by the public :—

GOVERNMENT AND PRIVATE RAILWAYS : MILEAGE CLASSIFIED, AT 30th JUNE, 1950.

(Miles.)

State or Territory.	Government Lines—		Private Lines available for General Traffic.	Total Open for General Traffic.
	State.	Commonwealth.		
New South Wales	6,113	..	54	6,167
Victoria	4,687	..	13	4,700
Queensland	6,560	..	135	6,695
South Australia	2,553	1,252	51	3,856
Western Australia	4,252	454	277	4,983
Tasmania	613	..	117	730
Northern Territory	..	490	..	490
Aust. Cap. Territory ..	..	5	..	5
Australia	24,778	2,201	647	27,626

7. **Comparative Railway Facilities.**—The mileage of lines open to the public for general traffic (including both Government and private lines) is shown in the following statement in relation to both population and area at 30th June, 1950 :—

GOVERNMENT AND PRIVATE RAILWAYS : COMPARISON OF FACILITIES, AT 30th JUNE, 1950.

(Miles.)

Particulars.	N.S.W.	Vic.	Q'ld.	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Mileage of Railway—									
Per 1,000 of population.. ..	1.91	2.13	5.66	5.51	8.93	2.61	32.02	0.21	3.37
Per 1,000 sq. miles of Territory ..	19.93	53.48	9.99	10.15	5.11	27.85	0.94	5.32	9.29

8. **Classification of Lines according to Gauge, 1949–50.**—The next table shows a classification according to gauge of the route-mileage open of (*a*) Commonwealth railways, according to the State or Territory in which situated ; (*b*) State railways ; and (*c*) Private railways open to the public for general traffic. Particulars of Government railways are up to 30th June, 1950, and of private railways open for general traffic to 31st December, 1950, as nearly as possible.

GOVERNMENT AND PRIVATE RAILWAYS : GAUGES, AT 30th JUNE, 1950.

(Miles.)

State or Territory.	Route-mileage having a gauge of—					Total.
	5 ft. 3 in.	4 ft. 8½ in.	3 ft. 6 in.	2 ft. 6 in.	2 ft. 0 in.	
			COMMONWEALTH RAILWAYS.			
South Australia ..	..	654	598	..	..	1,252
Western Australia ..	..	454	..	..	..	454
Northern Territory ..	..	..	490	..	..	490
Aust. Cap. Territory	..	5	..	..	..	5
Total ..	..	1,113	1,088	..	..	2,201
			STATE RAILWAYS.			
New South Wales ..	2	6,111	..	..	..	6,113
Victoria	4,572	..	..	115	..	4,687
Queensland ..	..	69	6,461	..	30	6,560
South Australia ..	1,529	..	1,024	..	..	2,553
Western Australia ..	..	..	4,252	..	..	4,252
Tasmania	..	..	613	..	..	613
Total ..	6,103	6,180	12,350	115	30	24,778
			PRIVATE RAILWAYS OPEN FOR GENERAL TRAFFIC.			
New South Wales ..	..	17	37	..	..	54
Victoria	13	..	..	..	..	13
Queensland ..	..	..	49	..	86	135
South Australia ..	..	..	51	..	..	51
Western Australia ..	..	..	277	..	..	277
Tasmania	..	..	110	..	7	117
Total ..	13	17	524	..	93	647
			ALL RAILWAYS OPEN FOR GENERAL TRAFFIC.			
New South Wales ..	2	6,128	37	..	..	6,167
Victoria	4,585	..	..	115	..	4,700
Queensland ..	..	69	6,510	..	116	6,695
South Australia ..	1,529	654	1,673	..	..	3,856
Western Australia ..	..	454	4,529	..	..	4,983
Tasmania	..	..	723	..	7	730
Northern Territory ..	..	..	490	..	..	490
Aust. Cap. Territory	..	5	..	..	..	5
GRAND TOTAL	6,116	7,310	13,962	115	123	27,626

9. **Summary of Operations, 1949–50.**—In the following table a summary is shown of the working of all railways open for general traffic in Australia during the year ended 30th June, 1950 :—

GOVERNMENT AND PRIVATE RAILWAYS : SUMMARY OF OPERATIONS, 1949–50.

Particulars.	Commonwealth Railways.	State Railways.	Private Railways.(a)	Total for Australia.
Mileage open (route) 30th June, 1950 miles	2,201	24,778	647	27,626
Capital cost (e) .. .. £'000	19,132	355,052	5,193	379,377
Gross revenue .. .. £'000	1,875	91,129	1,213	94,217
,, ,, per train-mile .. d.	269.41	238.35	269.15	239.25
Working expenses .. .. £'000	(b) 1,979	92,675	1,088	95,742
,, ,, per train-mile d.	284.30	242.39	241.42	243.12
Net revenue .. .. £'000	— 104	—1,546	125	—1,525
,, ,, per train-mile .. d.	—14.89	— 4.04	27.73	— 3.87
Train-miles run .. miles '000	1,670	91,761	1,082	94,513
Passenger-journeys .. .. No. '000	194	504,454	999	505,647
Tons of goods, etc., carried .. tons '000	549	40,369	3,251	44,169
Average number of employees No.	(c) 2,485	(c) 135,300	(d) 1,322	139,107
,, earnings per employee £	495	515	508	515

(a) Incomplete. Full particulars not available for all items. (b) Excludes amounts paid for Commissioner's salary (£3,000), Government contributions under the Superannuation Act (£27,979) and proportion of salaries of Auditor-General's staff (£1,600). (c) Excludes construction staff. (d) Employees at 31st December, 1950. (e) See § 2. para. 1 below.

Details shown above relating to capital cost do not include particulars of amounts totalling about £61.5 million written off during the period 1st July, 1927 to 1st July, 1937.

§ 2. Government Railways.

1. **Summary, 1949–50.**—The following table shows particulars of the mileage open, the capital cost, passengers and goods carried, and train miles run, for Government railways in Australia during 1949–50. The cost of construction, etc. shown for Australia (£374,184,000) does not represent the total expenditure on construction and equipment, as legislation was introduced in Victoria, Queensland, South Australia and Tasmania for the purpose of reducing the capital indebtedness of the railways. For this and other reasons the composition of this figure differs as between States and the matter is being reviewed for purposes of attaining a greater degree of uniformity. Figures relating to capital cost do not include charges for works in the course of construction, surveys, and discounts and flotation charges on loans allocated to the railways.

GOVERNMENT RAILWAYS : SUMMARY, 1949–50.

System.	Mileage Open.(a)		Total Cost of Construction and Equipment. (a)	Passengers Carried.	Goods and Live-stock Carried.	Train Miles Run.
	Route.	Track.				
	Miles.	Miles.	£'000.	'000.	'000 tons.	'000.
New South Wales	6,113	8,390	181,724	258,183	16,997	41,369
Victoria ..	4,687	6,071	58,801	182,101	9,125	17,550
Queensland ..	6,560	7,474	43,892	32,366	6,943	17,674
South Australia ..	2,553	3,150	33,267	17,385	3,692	6,356
Western Australia	4,252	4,718	31,524	11,188	2,843	6,733
Tasmania ..	613	707	3,397	3,231	770	2,080
Commonwealth ..	2,201	2,353	19,132	194	549	1,670
Australia ..	26,979	32,863	(b)374,184	504,648	40,919	93,432

(a) At 30th June, 1950. (b) Includes Commonwealth proportion Grafton–South Brisbane Line, £2,446,972.

The reductions made in the capital indebtedness referred to above were :—Victoria, £25,684,423 ; Queensland, £28,000,000 ; South Australia, £3,088,986 ; and Tasmania, £4,738,000. After adding these figures to the capital costs of the respective States and adjusting the route-mileage and capital cost for New South Wales and Queensland to exclude portions of the Grafton South Brisbane Line, the cost per route-mile open in each State and for the Commonwealth railways is as follows :—New South Wales, £30,040 ; Victoria, £18,025 ; Queensland, £10,995 ; South Australia, £14,241 ; Western Australia, £7,414 ; Tasmania, £13,271 ; Commonwealth, £8,092 ; and for all Government railways in Australia, £10,101. The lowest average cost is in Western Australia, and the highest is in New South Wales. Very few engineering difficulties were encountered in Western Australia, and the fact that contractors were permitted to carry traffic during the term of their contract considerably reduced expenditure. The cost per head of population on the adjusted basis above for each State and for Australia are as follows :—New South Wales, £56.34 ; Victoria, £38.35 ; Queensland, £60.73 ; South Australia, £51.92 ; Western Australia, £56.50 ; Tasmania, £29.12 ; all Government railways in Australia, £53.23.

2. **Expenditure on Construction and Equipment from Revenue and from Loans.**—The following table shows particulars of the expenditure on construction and equipment from revenue and from loans :—

GOVERNMENT RAILWAYS : CAPITAL EXPENDITURE FROM REVENUE AND FROM LOANS.

(£'000.)

System.	Expenditure from Revenue to 30th June, 1950.	Net Loan Expenditure.			
		1938–39.	1948–49.	1949–50.	Total to 30th June, 1950.
New South Wales ..	667	2,002	8,099	10,457	189,160
Victoria	(a) 6,653	(b) 354	(b) 1,344	(b) 2,655	(b) 85,115
Queensland	..	490	1,069	2,099	71,810
South Australia ..	..	261	901	703	40,558
Western Australia ..	640	(c) 195	359	2,208	28,983
Tasmania	..	35	400	367	(d) 9,250
Commonwealth ..	4,310	..	Cr. 1	Cr. 1	11,315
Australia ..	12,270	3,337	12,171	18,488	(e) 438,636

(a) From proceeds of sale of State lands, Consolidated Revenue Fund, National Recovery Loan, etc. (b) Gross loan expenditure. (c) Includes expenditure on railways provided in Unemployment Relief work programmes. (d) Includes losses funded. (e) Includes £2,444,621 Commonwealth loan expenditure on Grafton–South Brisbane Line.

3. **Gross Revenue.**—(i) *General.* The gross revenue, the revenue per average mile worked and the revenue per train-mile run during the years 1945–46 to 1949–50 in comparison with 1938–39 are shown in the following table. In 1949–50 the gross revenue excludes Government grants of £3,000,000 to New South Wales for losses due to the coal strike in July–August, 1949 ; £1,683,697 to Victoria to limit interest payments to one per cent. on loan liability; and £600,000, £1,600,000 and £800,000 to South Australia for losses due to the coal strike, contribution to increased working costs, and contribution to debt charges respectively.

GOVERNMENT RAILWAYS : GROSS REVENUE.

Year.	N.S.W.(a)	Vic.(b)	Q'land.	S. Aust.	W. Aust.	Tas.	C'wealth.	Australia.
TOTAL GROSS REVENUE. (£'000.)								
1938–39 ..	19,946	9,284	7,798	3,119	3,599	487	547	44,780
1945–46 ..	32,113	14,675	11,917	4,871	4,107	928	1,565	70,176
1946–47 ..	31,153	13,577	11,033	4,593	4,046	893	1,099	66,394
1947–48 ..	37,706	16,322	11,532	5,079	4,562	958	1,237	77,396
1948–49 ..	40,463	17,274	15,392	5,848	5,091	1,050	1,673	86,791
1949–50 ..	40,922	20,367	15,988	6,512	6,292	1,049	1,875	93,005
GROSS REVENUE PER AVERAGE ROUTE-MILE WORKED. (£.)								
1938–39 ..	3,263	1,953	1,188	1,220	822	740	248	1,645
1945–46 ..	5,241	3,091	1,815	1,912	937	1,445	711	2,579
1946–47 ..	5,084	2,859	1,680	1,803	931	1,393	499	2,443
1947–48 ..	6,153	3,454	1,758	1,994	1,049	1,560	562	2,854
1948–49 ..	6,611	3,666	2,346	2,296	1,178	1,709	760	3,206
1949–50 ..	6,694	4,341	2,437	2,555	1,480	1,711	852	3,447
GROSS REVENUE PER TRAIN-MILE RUN. (*d.*)								
1938–39 ..	159.01	124.54	134.38	121.19	131.38	61.30	145.42	138.70
1945–46 ..	202.81	215.49	183.25	183.99	156.33	99.84	206.70	194.35
1946–47 ..	199.38	209.69	164.01	183.42	147.26	95.44	174.41	186.27
1947–48 ..	232.29	232.90	185.96	198.73	153.99	103.95	185.33	211.76
1948–49 ..	239.77	238.92	211.78	231.65	173.63	113.23	240.91	225.71
1949–50 ..	237.40	278.53	217.10	245.92	224.28	121.03	269.41	238.90

(*a*) Includes £800,000 per annum contribution from consolidated revenue towards losses on working of country developmental lines. (*b*) Includes the following recoups by the Treasury—1938–39, £10,000 guarantee in respect of losses on certain lines ; and in 1945–46, 1946–47, 1947–48, 1948–49 and 1949–50, £147,500, £49,500, £18,100, £15,000 and £12,000 respectively, being recoups of losses resulting from reduction in suburban fares, etc., and Defence Force fare concessions.

(ii) *Coaching, Goods and Miscellaneous Receipts.* (*a*) *Totals.* The gross revenue is composed of (*a*) receipts from coaching traffic, including the carriage of mails, horses, parcels, etc., by passenger trains ; (*b*) receipts from the carriage of goods and live stock ; and (*c*) rents and miscellaneous items. The following table shows the gross revenue for 1938–39 and 1945–46 to 1949–50 classified according to the three chief sources of receipts. Some Government grants have been excluded from miscellaneous receipts for 1949–50. The amounts of these grants are shown in the preceding paragraph. The total of the three items specified has already been stated above.

GOVERNMENT RAILWAYS : COACHING, GOODS AND MISCELLANEOUS RECEIPTS.

(£'000.)

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	C'wealth.	Australia.
COACHING TRAFFIC RECEIPTS.								
1938–39 ..	6,877	4,286	2,057	754	704	152	194	15,024
1945–46 ..	13,362	7,413	4,145	1,574	1,324	334	656	28,808
1946–47 ..	11,584	6,359	3,034	1,267	1,069	280	407	24,000
1947–48 ..	13,009	7,125	2,941	1,286	1,102	256	435	26,154
1948–49 ..	13,464	7,369	3,506	1,344	1,114	227	480	27,504
1949–50 ..	13,483	8,122	3,591	1,367	1,169	200	530	28,462

GOVERNMENT RAILWAYS: COACHING, GOODS AND MISCELLANEOUS RECEIPTS—*continued.*

(£'000.)

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	C'wealth.	Australia.
				GOODS AND LIVE STOCK TRAFFIC RECEIPTS.				
1938–39 ..	10,356	4,276	5,474	2,144	2,807	318	224	25,599
1945–46 ..	14,739	6,058	7,226	2,889	2,674	563	803	34,952
1946–47 ..	14,326	6,109	7,526	2,947	2,810	581	580	34,879
1947–48 ..	19,804	7,992	8,119	3,380	3,160	664	675	43,794
1948–49 ..	21,597	8,596	11,325	3,998	3,634	785	1,058	50,993
1949–50 ..	21,892	10,817	11,819	4,611	4,749	816	1,193	55,897
				MISCELLANEOUS RECEIPTS.				
	(*a*)	(*b*)						
1938–39 ..	2,713	722	266	222	88	17	129	4,157
1945–46 ..	4,012	1,204	546	408	109	31	106	6,416
1946–47 ..	5,243	1,109	473	379	167	32	112	7,515
1947–48 ..	4,893	1,205	472	413	300	38	127	7,448
1948–49 ..	5,403	1,308	560	507	343	38	135	8,294
1949–50 ..	5,547	1,427	578	533	374	33	153	8,645

(*a*) *See* note (*a*) to Gross Revenue table above. (*b*) *See* note (*b*) to Gross Revenue table above.

(*b*) *Proportions to Total.* The following table shows for each of the years 1948–49 and 1949–50 the proportion of each class of receipts to the total gross revenue :—

GOVERNMENT RAILWAYS: PROPORTION OF EACH CLASS OF RECEIPTS TO TOTAL RECEIPTS.

(Per Cent.)

System.	1948–49.			1949–50.		
	Coaching.	Goods and Live Stock.	Miscellaneous.	Coaching.	Goods and Live Stock.	Miscellaneous.
New South Wales ..	33.28	53.37	13.35	32.95	53.50	13.55
Victoria	42.66	49.76	7.58	39.88	53.11	7.01
Queensland.. ..	22.78	73.58	3.64	22.46	73.93	3.61
South Australia ..	22.98	68.35	8.67	21.00	70.81	8.19
Western Australia ..	21.87	71.39	6.74	18.57	75.48	5.95
Tasmania	21.63	74.79	3.58	19.06	77.81	3.13
Commonwealth ..	28.67	63.26	8.07	28.24	63.61	8.15
Australia ..	31.69	58.75	9.56	30.60	60.10	9.30

4. **Working Expenses.**—(i) *General.* In order to make an adequate comparison of the working expenses, allowance should be made for the variation of gauges and of physical and traffic conditions, not only on the different systems of the State and Commonwealth railways, but also on different portions of the same systems. When traffic is light, the proportion of working expenses to revenue is naturally greater than when traffic is heavy; and this is especially true in Australia, where ton-mile rates are in many cases based on a tapering principle—i.e., a lower rate per ton-mile is charged upon merchandise from remote interior districts—and where on many of the lines there is but little back loading.

Working expenses, wherever represented in division B. Railways of this chapter, excludes interest, sinking fund, exchange and certain other payments (*see* paras. 6 and 7 following).

During the war years large amounts were set aside by the Railways as reserves, mainly to provide for depreciation and accrued leave, to be expended as circumstances permit. Particulars of these amounts, which were included in Working Expenses and which in the year 1942–43 aggregated nearly £10,000,000 and over the whole period about £30,000,000, are given in previous issues of the Year Book.

The following table shows the total working expenses, the proportion thereof to gross revenue, and the expenditure per average mile worked and per train-mile run for the years 1945–46 to 1949–50 in comparison with 1938–39 :—

GOVERNMENT RAILWAYS : WORKING EXPENSES.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	C'wealth. (a)	Australia
TOTAL WORKING EXPENSES. (£'000.)								
1938–30 ..	14,543	8,060	6,193	2,931	2,911	678	642	35,958
1945–46 ..	24,934	12,531	10,425	5,107	4,027	1,209	1,502	59,735
1946–47 ..	25,886	12,916	10,191	5,045	4,424	1,253	1,224	60,939
1947–48 ..	31,015	15,225	10,641	5,947	5,545	1,455	1,439	71,267
1948–49 ..	35,739	17,815	14,163	7,237	6,612	1,613	1,777	84,056
1949–50 ..	39,280	19,983	15,857	8,440	7,387	1,728	1,979	94,654
PROPORTION OF WORKING EXPENSES TO GROSS REVENUE. (Per Cent.)								
1938–39 ..	72.91	86.82	79.42	93.97	80.90	139.18	117.43	80.30
1945–46 ..	77.64	85.39	87.49	104.86	98.05	130.34	95.96	85.12
1946–47 ..	83.09	95.13	92.37	109.85	109.34	140.37	111.35	91.78
1947–48 ..	82.85	93.28	92.27	117.09	121.54	151.87	116.33	92.08
1948–49 ..	88.32	103.14	92.02	123.74	129.89	153.62	106.17	97.88
1949–50 ..	95.99	98.12	99.18	129.61	117.40	164.73	105.53	101.77
WORKING EXPENSES PER AVERAGE ROUTE-MILE WORKED. (£.)								
1938–39 ..	2,378	1,695	943	1,146	665	1,030	292	1,321
1945–46 ..	4,069	2,639	1,588	2,005	919	1,883	682	2,195
1946–47 ..	4,224	2,720	1,552	1,981	1,017	1,955	556	2,242
1947–48 ..	5,061	3,222	1,622	2,335	1,275	2,369	654	2,628
1948–49 ..	5,839	3,781	2,159	2,841	1,530	2,626	807	3,138
1949–50 ..	6,426	4,259	2,417	3,311	1,737	2,819	899	3,508
WORKING EXPENSES PER TRAIN-MILE RUN. (*d.*)								
1938–39 ..	115.93	108.13	106.72	113.88	106.28	85.31	170.77	111.38
1945–46 ..	157.47	184.01	160.32	192.93	153.28	130.13	198.35	165.44
1946–47 ..	165.67	199.48	151.49	201.48	161.02	133.97	194.20	170.97
1947–48 ..	191.07	217.25	171.59	232.70	187.16	157.87	215.59	194.99
1948–49 ..	211.77	246.41	194.88	286.64	225.52	173.94	255.78	220.94
1949–50 ..	227.88	273.29	215.32	318.72	263.30	199.37	284.30	243.14

(*a*) *See* § 1., para. 9, note (*b*) *ante.*

(ii) *Distribution.* The following table shows the distribution of working expenses under the chief four heads of expenditure for the years 1938–39 and 1945–46 to 1949–50 :—

GOVERNMENT RAILWAYS : DISTRIBUTION OF WORKING EXPENSES.

(£'000.)

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	C'wealth. (a)	Australia
MAINTENANCE OF WAY AND WORKS.								
1938–39 ..	2,972	1,374	1,602	503	667	129	245	7,492
1945–46 ..	4,732	2,467	2,131	778	736	212	438	11,494
1946–47 ..	4,399	2,413	2,053	710	800	212	315	10,902
1947–48 ..	5,228	2,698	2,281	777	910	244	355	12,493
1948–49 ..	6,141	3,081	2,923	1,069	1,028	275	452	14,969
1949–50 ..	6,361	3,492	3,431	1,366	1,301	303	462	16,716
ROLLING STOCK.								
1938–39 ..	5,622	2,801	2,695	1,389	1,321	373	251	14,452
1945–46 ..	9,478	4,533	4,974	2,519	1,932	552	800	24,788
1946–47 ..	9,862	4,242	4,764	2,447	2,047	538	651	24,551
1947–48 ..	11,734	5,298	4,840	2,934	2,625	630	771	28,832
1948–49 ..	13,379	6,432	6,575	3,483	3,381	720	938	34,908
1949–50 ..	15,427	6,882	7,469	4,075	3,573	758	1,084	39,268

(*a*) *See* § 1., para. 9, note (*b*) *ante.*

GOVERNMENT RAILWAYS: DISTRIBUTION OF WORKING EXPENSES —*continued.*

(£'000.)

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	C'wealth. (*a*)	Australia.
				TRANSPORTATION AND TRAFFIC.				
1938–39 ..	3,502	2,254	1,533	682	779	151	101	9,002
1945–46 ..	5,926	3,044	2,504	1,217	1,008	226	193	14,118
1946–47 ..	6,276	3,255	2,550	1,272	1,205	239	177	14,974
1947–48 ..	7,620	4,105	2,706	1,553	1,383	285	216	17,868
1948–49 ..	8,683	4,734	3,651	1,847	1,443	317	281	20,956
1949–50 ..	9,225	5,192	3,911	2,097	1,584	351	315	22,675
				OTHER CHARGES.				
1938–39 ..	2,448	1,630	363	357	144	24	45	5,011
1945–46 ..	4,798	2,487	816	593	351	219	71	9,335
1946–47 ..	5,349	3,006	824	616	372	264	81	10,512
1947–48 ..	6,433	3,124	814	683	627	296	97	12,074
1948–49 ..	7,536	3,568	1,015	838	760	300	105	14,122
1949–50 ..	8,267	4,417	1,046	901	930	315	118	15,994

(*a*) *See* § 1., para. 9, note (*b*) *ante.*

5. Net Revenue.—The following table shows the net revenue, i.e., the excess of gross revenue over working expenses, and the amount of such net revenue per average mile worked and per train-mile run for the years 1945–46 to 1949–50 in comparison with 1938–39 :—

GOVERNMENT RAILWAYS : NET REVENUE.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	C'wealth. (*a*)	Australia.
				NET REVENUE. (£'000.)				
1938–39 ..	5,403	1,224	1,605	188	688	−191	− 95	8,822
1945–46 ..	7,180	2,144	1,491	− 237	80	−281	63	10,440
1946–47 ..	5,267	661	842	− 452	− 378	−360	−125	5,455
1947–48 ..	6,691	1,097	891	− 868	− 983	−497	−202	6,129
1948–49 ..	4,725	−542	1,228	−1,388	−1,522	−563	−103	1,835
1949–50 ..	1,641	383	131	−1,928	−1,094	−679	−104	−1,650
				NET REVENUE PER AVERAGE ROUTE-MILE WORKED. (£.)				
1938–39 ..	884	257	244	74	157	− 290	−43	324
1945–46 ..	1,172	452	227	− 93	18	− 438	29	384
1946–47 ..	860	139	128	−178	− 86	− 562	−57	201
1947–48 ..	1,092	232	136	−341	−226	− 809	−92	226
1948–49 ..	772	−115	187	−545	−352	− 917	−47	68
1949–50 ..	268	82	20	−756	−257	−1,108	−47	−61
				NET REVENUE PER TRAIN-MILE RUN. (*d.*)				
1938–39 ..	43.08	16.42	27.66	7.31	25.10	−24.01	−25.35	27.33
1945–46 ..	45.34	31.48	22.93	− 8.94	3.05	−30.29	8.35	28.91
1946–47 ..	33.71	10.21	12.52	−18.06	−13.76	−38.53	−19.79	15.30
1947–48 ..	41.22	15.65	14.37	−33.97	−33.17	−53.92	−30.26	16.77
1948–49 ..	28.00	−7.49	16.90	−54.99	−51.89	−60.71	−14.87	4.77
1949–50 ..	9.52	5.24	1.78	−72.80	−39.02	−78.34	−14.89	−4.24

(*a*) *See* § 1., para. 9, note (*b*) *ante.*

In the graphs accompanying this Chapter the gross and net revenue and working expenses are shown from 1870 to 1950.

6. **Interest.**—The interest payments on expenditure from loans for the construction and equipment of the Government railways in Australia during the years 1938–39 and 1945–46 to 1949–50 were as follows :—

GOVERNMENT RAILWAYS : INTEREST PAYMENTS ON RAILWAY LOAN EXPENDITURE.

(£'000.)

Year.	N.S.W.	Victoria. (*a*)	Q'land. (*a*)	S. Aust. (*a*)	W. Aust.	Tasmania. (*a*)	C'wealth.	Australia. (*b*)
1938–39 ..	5,360	1,860	1,642	1,075	1,001	80	395	11,540
1945–46 ..	5,240	1,902	1,480	1,054	1,040	97	341	11,265
1946–47 ..	5,126	1,840	1,440	1,013	1,033	100	338	10,972
1947–48 ..	5,145	1,862	1,431	1,001	1,046	112	317	10,996
1948–49 ..	5,038	1,881	1,419	1,006	1,063	113	310	10,913
1949–50 ..	5,350	1,935	1,453	1,023	1,093	121	298	11,355

(*a*) Capital indebtedness reduced by legislation in these four States. *See* para. 1, *ante*. (*b*) Includes Commonwealth share of interest, Uniform Gauge Railway (1949–50, £82,375).

The interest payable on the cost of construction and equipment as shown in the table in para. 1, *ante*, after the expenditure from Consolidated Revenue (£12,270,000 to June, 1950) for that purpose had been deducted, was at the rate of 3.1 per cent. in 1949–50.

Exchange on interest payments abroad and certain other charges are not included in the table above. These items are not charged against the railways in Queensland and Western Australia and have been excluded for the purposes of comparison. In the remaining States the amounts paid on account of exchange were :—in 1948–49—New South Wales, £548,000 ; Victoria, £153,321 ; South Australia, £87,192 ; and Tasmania, £7,831 ; and in 1949–50—New South Wales, £603,000 ; Victoria, £157,444 ; South Australia, £81,646 ; and Tasmania, £5,804.

7. **Profit or Loss.**—The following table shows, for the years 1938–39 and 1945–46 to 1949–50, the actual profit or loss after deducting working expenses and interest, but excluding exchange, from the gross revenue :—

GOVERNMENT RAILWAYS : PROFIT OR LOSS AFTER PAYMENT OF WORKING EXPENSES AND INTEREST.

(£'000.)

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	C'wealth. (*a*)	Australia.
1938–39 ..	43	− 636	− 37	− 886	− 313	− 272	− 490	−2,718
1945–46 ..	1,939	242	11	− 1,291	− 960	− 378	− 277	− 825
1946–47 ..	141	−1,179	− 597	− 1,465	− 1,411	− 461	− 463	−5,517
1947–48 ..	1,546	− 765	− 540	− 1,869	− 2,029	− 609	− 519	−4,867
1948–49 ..	− 313	−2,423	− 191	− 2,395	− 2,585	− 676	− 413	−9,077
1949–50 ..	−3,709	−1,551	−1,322	− 2,951	− 2,188	− 800	− 401	−13,005

(*a*) *See* § 1., para. 9, note (*b*) *ante*.

8. **Traffic.**—(i) *General.* Reference has already been made to the difference in the traffic conditions on many of the lines. These conditions differ not only in the several State and Commonwealth systems, but also on different lines in the same system, and apply to both passenger and goods traffic. By far the greater part of the population of Australia is confined to a fringe of country near the coast, more especially in the eastern

and southern districts. A large proportion of the railway traffic between the chief centres of population is therefore carried over lines in the neighbourhood of the coast, and is thus, in some cases, open to seaborne competition. In recent years competition from road and air transport has become an important factor.

The following table shows particulars for the years 1945–46 to 1949–50 in comparison with 1938–39 :—

GOVERNMENT RAILWAYS : TRAFFIC.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	C'wealth.	Australia.
				PASSENGER-JOURNEYS. ('000.)				
1938–39 ..	186,720	142,123	24,639	17,529	11,416	2,297	117	384,841
1945–46 ..	267,423	196,118	38,199	23,119	17,136	3,414	347	545,756
1946–47 ..	261,644	170,165	34,188	19,827	13,879	3,252	223	503,178
1947–48 ..	263,047	182,210	29,325	19,067	13,928	2,974	216	510,767
1948–49 ..	263,116	176,555	32,687	18,210	12,624	3,295	217	506,704
1949–50 ..	258,183	182,101	32,366	17,385	11,188	3,231	194	504,648
				PASSENGER-JOURNEYS PER AVERAGE ROUTE-MILE OF LINE WORKED. (Number.)				
1938–39 ..	30,541	29,896	3,752	6,854	2,608	3,490	53	14,134
1945–46 ..	43,639	41,305	5,818	9,077	3,911	5,318	158	20,055
1946–47 ..	42,697	35,839	5,207	7,784	3,192	5,074	101	18,513
1947–48 ..	42,925	38,563	4,470	7,486	3,203	4,844	98	18,832
1948–49 ..	42,986	37,469	4,983	7,150	2,921	5,366	99	18,714
1949–50 ..	42,235	38,811	4,934	6,820	2,631	5,270	89	18,705
				GOODS AND LIVE-STOCK CARRIED. ('000 Tons.)				
1938–39 ..	15,417	5,976	5,234	2,640	2,859	844	186	33,156
1945–46 ..	16,885	7,229	5,758	2,970	2,728	880	276	36,726
1946–47 ..	17,594	7,562	5,750	3,215	2,577	896	343	37,937
1947–48 ..	18,518	8,440	5,523	3,560	2,858	817	423	40,139
1948–49 ..	18,080	8,859	6,888	3,793	2,737	802	546	41,705
1949–50 ..	16,996	9,125	6,943	3,692	2,843	770	549	40,918
				GOODS, ETC., CARRIED PER AVERAGE ROUTE-MILE OF LINE WORKED. (Tons.)				
1938–39 ..	2,522	1,257	797	1,032	653	1,282	84	1,218
1945–46 ..	2,755	1,523	877	1,166	623	1,375	125	1,350
1946–47 ..	2,871	1,593	876	1,262	593	1,398	156	1,396
1947–48 ..	3,022	1,786	841	1,398	657	1,331	192	1,480
1948–49 ..	2,954	1,880	1,050	1,489	633	1,306	248	1,540
1949–50 ..	2,780	1,945	1,058	1,448	669	1,257	249	1,517

(ii) *Metropolitan and Country Passenger Traffic and Revenue*, 1949–50. A further indication of the difference in passenger traffic conditions is obtained from the comparison of the volume of metropolitan and suburban and country traffic during 1949–50 shown below.

GOVERNMENT RAILWAYS : METROPOLITAN AND SUBURBAN, AND COUNTRY PASSENGER TRAFFIC AND RECEIPTS, 1949–50.

System.	Passenger-Journeys. ('000.)			Revenue. (£'000.)		
	Metropolitan and Suburban.	Country.	Total.	Metropolitan and Suburban.	Country.	Total.
New South Wales	(a)	(a)	258,183	(a)	(a)	(b) 12,114
Victoria ..	173,869	8,232	182,101	4,214	3,037	7,251
Queensland ..	25,724	6,642	32,366	553	2,289	2,842
South Australia ..	15,653	1,732	17,385	351	713	1,064
Western Australia	9,596	1,592	11,188	167	664	831
Tasmania ..	2,129	1,102	3,231	(a)	(a)	164
Commonwealth ..	..	194	194	..	378	378
Australia ..	(a)	(a)	504,648	(a)	(a)	24,644

(a) Not available. (b) Estimated.

(iii) *Goods Traffic.* (a) *Classification.* Some indication of the differing conditions of the traffic in each system is also given by an examination of the tonnage of the various classes of commodities carried, and of the revenue derived therefrom. The following table shows the number of tons of various commodities carried during 1949–50.

GOVERNMENT RAILWAYS : CLASSIFICATION OF COMMODITIES CARRIED, 1949–50.
('000 tons.)

System.	Coal, Coke and Shale.	Other Minerals.	Grain and Flour.	Wool.	Live Stock.	All other Commodities.	Total.
New South Wales ..	(a)	(a)	(c) 1,640	(e) 157	(e) 1,106	14,093	16,996
Victoria	1,251	193	1,813	128	716	5,024	9,125
Queensland ..	1,323	504	(d) 2,696	71	708	1,641	6,943
South Australia ..	724	606	737	45	244	1,336	3,692
Western Australia ..	414	245	747	36	147	1,254	2,843
Tasmania ..	131	45	(a)	3	27	564	770
Commonwealth ..	315	11	(a)	4	61	158	549
Australia ..	(b)	(b)	(b)	444	3,009	24,070	40,918

(a) Included with "All other Commodities". (b) Not available. (c) Grain only. (d) Agricultural produce. (e) Estimated.

(b) *Revenue.* The following table shows the revenue derived from goods and live stock traffic during 1949–50 :—

GOVERNMENT RAILWAYS : REVENUE FROM GOODS AND LIVE STOCK, 1949–50.
(£'000.)

System.	General Merchandise.	Wool.	Live-stock.	Minerals.		Miscellaneous.	Total.
				Coal and Coke.	Other.		
New South Wales ..	(a)	(a)	(a)	(a)	(a)	(a)	21,892
Victoria	8,567	401	932	643	119	155	10,817
Queensland ..	5,554	573	1,285	1,321	766	(b) 2,320	11,819
South Australia ..	2,517	146	351	232	965	(c) 400	4,611
Western Australia ..	3,539	132	256	368	189	265	4,749
Tasmania ..	(a)	(a)	(a)	(a)	(a)	(a)	816
Commonwealth ..	694	13	140	325	15	6	1,193
Australia ..	(a)	(a)	(a)	(a)	(a)	(a)	55,897

(a) Not available. (b) Includes agricultural produce, £2,235,574. (c) Includes wheat, £310,656.

(iv) *Passenger-Mileage and Ton-Mileage.* Particulars of passenger-mileage and ton-mileage in respect of the Government railways in Australia for the years 1938–39 and 1946–47 to 1949–50 are shown in the following tables.

(*a*) *Passenger-Mileage.* The following table shows particulars of passenger-mileage in respect of the Government railways in Australia for the years 1938–39 and 1946–47 to 1949–50.

GOVERNMENT RAILWAYS: PASSENGER-MILEAGE SUMMARY.

Year ended 30th June—	Passenger Train-Miles.	Total Passenger-Miles.	Average Passengers per Train-Mile.	Average Mileage per Passenger-Journey.	Passenger Earnings.				Density of Traffic (*a*).
					Gross.	Per Average Route-Mile Worked.	Per Passenger-Mile.	Per Passenger Train-Mile.	
	('000.)	('000.)	(No.)	(Miles.)	(£'000.)	(£)	(*d.*)	(*d.*)	
				NEW SOUTH WALES.					
1939	19,173	2,149,154	112	11.51	6,024	985	0.67	75.41	351,526
1947	(*b*)	(*b*)	(*b*)	(*b*)	*c* 10,408	1,698	(*b*)	(*b*)	(*b*)
1948	(*b*)	(*b*)	(*b*)	(*b*)	*c* 11,689	1,907	(*b*)	(*b*)	(*b*)
1949	(*b*)	(*b*)	(*b*)	(*b*)	*c* 12,097	1,976	(*b*)	(*b*)	(*b*)
1950	(*b*)	(*b*)	(*b*)	(*b*)	*c* 12,114	1,982	(*b*)	(*b*)	(*b*)
				VICTORIA.					
1939	12,434	1,292,843	104	9.10	3,855	811	0.72	74.40	271,948
1947	10,309	(*b*)	(*b*)	(*b*)	5,751	1,211	(*b*)	133.88	(*b*)
1948	10,960	1,838,932	168	10.09	6,448	1,365	0.84	141.31	389,192
1949	11,436	1,858,640	163	10.53	6,646	1,410	0.86	139.46	394,448
1950	11,597	1,857,065	160	10.20	7,251	1,547	0.94	150.07	395,794
				QUEENSLAND. (*d*)					
1939	5,750	(*b*)	(*b*)	(*b*)	1,523	232	(*b*)	63.55	(*b*)
1947	6,136	(*b*)	(*b*)	(*b*)	2,378	366	(*b*)	93.01	(*b*)
1948	5,553	(*b*)	(*b*)	(*b*)	2,282	352	(*b*)	98.64	(*b*)
1949	6,405	(*b*)	(*b*)	(*b*)	2,740	418	(*b*)	102.67	(*b*)
1950	6,409	(*b*)	(*b*)	(*b*)	2,739	418	(*b*)	102.56	(*b*)
				SOUTH AUSTRALIA.					
1939	3,747	212,982	57	12.15	600	235	0.68	38.45	83,281
1947	3,492	320,844	92	16.18	1,044	410	0.78	71.77	125,970
1948	3,597	312,575	87	16.39	1,039	407	0.80	69.31	122,723
1949	3,363	307,241	91	16.87	1,075	422	0.84	76.87	120,628
1950	3,617	290,848	80	16.73	1,064	417	0.88	70.83	114,102
				WESTERN AUSTRALIA.					
1939	2,795	(*b*)	(*b*)	(*b*)	514	117	(*b*)	44.12	(*b*)
1947	2,955	(*b*)	(*b*)	(*b*)	864	199	(*b*)	70.14	(*b*)
1948	3,107	(*b*)	(*b*)	(*b*)	860	198	(*b*)	66.46	(*b*)
1949	2,935	186,488	64	14.77	872	202	1.12	71.34	43,159
1950	2,476	175,152	71	15.66	831	195	1.14	80.53	41,192
				TASMANIA.					
1939	1,027	35,193	34	15.32	129	196	0.88	30.15	53,485
1947	1,137	(*b*)	(*b*)	(*b*)	247	385	(*b*)	52.15	(*b*)
1948	1,093	(*b*)	(*b*)	(*b*)	221	359	(*b*)	53.04	(*b*)
1949	1,087	(*b*)	(*b*)	(*b*)	193	314	(*b*)	42.72	(*b*)
1950	1,043	38,057	36	11.78	164	268	1.04	37.81	62,083
				COMMONWEALTH. (*e*)					
1939	388	34,085	88	290.98	146	66	1.03	90.21	15,486
1947	421	65,054	154	292.28	305	139	1.13	174.09	29,556
1948	454	67,685	149	312.62	329	149	1.17	173.64	30,752
1949	473	63,669	135	293.53	367	167	1.38	186.18	28,927
1950	464	58,335	126	300.69	378	172	1.55	195.73	26,503

(*a*) Total passenger-miles per average route-mile worked. (*b*) Not available. (*c*) Estimated. (*d*) Excludes Queensland portion of Grafton–South Brisbane (Uniform Gauge) Line. (*e*) Railways controlled by Commonwealth Government.

(*b*) *Ton-Mileage.* Particulars of total ton-mileages are shown in the following table for each of the years 1938–39 and 1946–47 to 1949–50.

GOVERNMENT RAILWAYS : TON-MILEAGE SUMMARY.

Year ended 30th June—	Goods-Train-Miles.	Total Ton-Miles.	Average Freight Paying Load per Train-Mile.	Average Haul per Ton.	Goods and Live Stock Earnings.				Density of Traffic (*a*).
					Gross.	Per Average Route-Mile Worked.	Per Ton-Mile.	Per Goods-Train-Mile.	
	('000.)	('000.)	(Tons.)	(Miles.)	(£'000.)	(£)	(*d.*)	(*d.*)	
NEW SOUTH WALES.									
1939	10,933	1,760,534	161	115.95	10,356	1,694	1.41	227.34	287,961
1947	(*b*)	2,706,240	(*b*)	153.81	14,326	2,338	1.27	(*b*)	441,619
1948	(*b*)	2,777,137	(*b*)	149.97	19,804	3,232	1.71	(*b*)	453,188
1949	(*b*)	2,834,875	(*b*)	156 80	21,597	3,528	1.83	(*b*)	463,139
1950	(*b*)	2,708,654	(*b*)	159.37	21,892	3,581	1.94	(*b*)	443,097
VICTORIA.									
1939	5,455	760,485	139	127.26	4,276	899	1.35	188.11	159,967
1947	5,230	981,908	188	129.85	6,109	1,287	1.49	280.32	206,805
1948	5,859	1,154,631	197	136.81	7,992	1,689	1.66	327.34	244,371
1949	5,915	1,167,582	197	131.80	8,596	1,824	1.77	348.77	247,789
1950	5,952	1,206,767	203	132 25	10,817	2,305	2.15	436.12	257,197
QUEENSLAND.(*c*)									
1939	8,073	745,351	92	147.57	5,404	823	1.73	160.67	116,248
1947	9,861	991,069	101	183.11	7,268	1,119	1.75	176.90	152,542
1948	9,186	966,016	105	184.63	7,871	1,213	1.96	205.63	148,824
1949	10,870	1,140,694	105	173.06	11,019	1,698	2.32	243.28	175,735
1950	11,100	1,182,102	107	177.61	11,514	1,774	2.34	248.95	182,114
SOUTH AUSTRALIA.									
1939	2,430	348,553	143	132.01	2,144	838	1.48	211.72	136,293
1947	2,518	400,093	159	124.43	2,946	1,157	1.77	280.80	157,084
1948	2,537	445,472	176	125.14	3,380	1,327	1.82	318.75	174,901
1949	2,696	485,241	180	127.94	3,998	1,570	1.98	355.88	190,515
1950	2,739	489,516	179	132.60	4,611	1,809	2.26	404.08	192,042
WESTERN AUSTRALIA.									
1939	3,779	378,089	100	132.24	2,807	641	1.78	178.26	86,393
1947	3,639	365,778	101	141.94	2,810	646	1.84	185.31	84,126
1948	4,004	415,988	104	145.57	3,160	727	1.82	189.41	95,673
1949	4,101	393,525	96	143.79	3,635	841	2.22	212.69	91,073
1950	4,257	426,359	100	149.95	4,749	1,117	2.67	267.72	100,273
TASMANIA.									
1939	880	38,088	43	46.80	296	450	1.87	80.76	57,585
1947	1,085	63,586	59	70.95	581	906	2.19	128.47	99,198
1948	1,119	65,144	58	79.68	664	1,082	2.45	142.51	106,097
1949	1,105	67,327	61	83.95	785	1,279	2.80	170.48	109,653
1950	1,037	67,738	65	87.94	816	1,332	2.89	188.01	110,502
COMMONWEALTH.(*d*)									
1939	514	34,801	68	187.28	224	102	1.54	104.38	15,811
1947	1,092	96,684	89	282.29	580	264	1.44	127.53	43,926
1948	1,148	109,586	95	258.91	675	307	1.48	141.07	49,789
1949	1,194	123,122	103	225.38	1,059	481	2.06	212.70	55,939
1950	1,207	121,804	101	221.81	1,193	542	2.35	237.11	55,340

(*a*) Total ton-miles per average route-mile worked. (*b*) Not available. (*c*) Excludes Queensland portion of Grafton–South Brisbane (Uniform Gauge) Line. (*d*) Railways controlled by the Commonwealth Government.

9. **Rolling Stock.**—The following table shows the number of rolling stock of Government railways as at 30th June for each of the years 1939, 1949 and 1950. Further details may be found in *Transport and Communication Bulletins.*

GOVERNMENT RAILWAYS : ROLLING STOCK.

System.	30th June—								
	1939.			1949.			1950.		
	Locos.	Coaching Stock.	Other Stock.	Locos.	Coaching Stock.	Other Stock.	Locos.	Coaching Stock.	Other Stock.
New South Wales ..	1,284	2,808	24,257	1,168	2,826	25,689	1,153	2,849	26,302
Victoria ..	581	2,439	20,993	599	*a* 2,452	21,076	597	*a* 2,539	21,267
Queensland ..	752	1,413	18,733	786	1,444	20,659	797	1,430	20,796
South Australia ..	335	594	7,966	335	(*a*) 600	8,509	335	(*a*) 595	8,591
Western Australia ..	427	475	11,110	424	517	11,216	421	448	11,136
Tasmania ..	95	225	2,120	96	254	2,306	92	202	2,387
Commonwealth ..	113	89	1,359	130	102	1,766	141	107	1,930
Australia ..	3,587	8,043	86,538	3,538	*a* 8,195	91,221	3,536	*a* 8,170	92,409

(*a*) Excludes 44 interstate coaching stock jointly owned by Victoria and South Australia.

10. **Accidents.**—The following table shows particulars of the number of persons killed and injured through train accidents and the movement of rolling stock on the Government railways of Australia for each of the years 1938–39, 1948–49 and 1949–50 :—

GOVERNMENT RAILWAYS : ACCIDENTS.

System.	1938–39.		1948–49.(*a*)		1949–50.(*a*)	
	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.
New South Wales ..	57	625	45	499	46	369
Victoria ..	48	466	51	525	58	482
Queensland ..	23	132	25	87	17	89
South Australia ..	9	187	16	45	9	122
Western Australia ..	14	142	20	155	22	149
Tasmania ..	7	62	5	8	1	24
Commonwealth ..	1	20	..	31	..	20
Australia ..	159	1,634	162	1,350	153	1,255

(*a*) Excludes accidents to railway employees.

11. **Consumption of Oil and Coal.**—The following table shows the quantities and values of oil and coal consumed by the various Government Railway Departments during 1949–50:—

GOVERNMENT RAILWAYS : OIL AND COAL CONSUMED, 1949–50.

System.	Oil.				Coal.			
	Lubrication.		Fuel, Light, etc.		Locomotives.		Other Purposes.	
	Gallons ('000).	£'000.	Gallons ('000).	£'000.	Tons ('000).	£'000.	Tons ('000).	£'000.
N.S.W. ..	(*a*)	(*a*)	(*a*)	(*a*)	1,319	2,198	888	1,909
Victoria ..	240	45	21,399	731	353	1,177	165	492
Q'land. ..	356	73	808	67	667	1,038	37	65
S. Aust. ..	136	30	13,238	559	263	860	7	17
W. Aust...	179	48	5,010	296	347	548	9	13
Tas. ..	52	12	212	16	73	142	..	1
C'wealth ..	50	10	2,345	162	77	310	1	3
Australia	(*a*)	(*a*)	(*a*)	(*a*)	3,099	6,273	1,107	2,500

(*a*) Not available.

12. **Staff Employed and Salaries and Wages Paid.**—The following tables show details of the average staff employed and the salaries and wages paid by the Government railways of Australia during 1948–49 and 1949–50 :—

GOVERNMENT RAILWAYS : AVERAGE STAFF EMPLOYED, AND SALARIES AND WAGES PAID.

System.	Number of Operating Staff.			Number of Construction Staff.			Total Salaries and Wages Paid. (£'000)	Average Earnings Per Employee. (£)
	Salaried.	Wages.	Total.	Salaried.	Wages.	Total.		
			1948–49.					
New South Wales ..	9,640	49,008	58,648	41	597	638	28,509	481
Victoria	5,028	21,942	26,970	(a)	(a)	(a)	13,028	487
Queensland	3,918	20,910	24,828	(a)	(a)	(a)	12,017	484
South Australia ..	1,791	7,475	9,266	8	988	996	4,847	475
Western Australia ..	1,651	9,072	10,723	..	..	..	4,843	452
Tasmania	330	2,350	2,680	..	63	63	1,125	410
Commonwealth ..	212	2,428	2,640	..	56	56	1,196	444
Australia ..	22,570	113,185	135,755	49	1,704	1,753	65,565	477
			1949–50.					
New South Wales ..	9,812	49,111	58,923	39	518	557	30,519	513
Victoria	5,002	22,266	27,268	(a)	(a)	(a)	14,321	525
Queensland	4,076	21,598	25,674	(a)	(a)	(a)	13,509	526
South Australia ..	1,830	7,935	9,765	10	1,293	1,303	5,668	512
Western Australia ..	1,728	9,362	11,090	..	..	..	5,479	494
Tasmania	321	2,259	2,580	15	125	140	1,206	444
Commonwealth ..	248	2,237	2,485	..	78	78	1,268	495
Australia ..	23,017	114,768	137,785	64	2,014	2,078	71,970	515

(a) In Victoria and Queensland railway construction work is not under the control of the Railway Commissioners.

§ 3. Private Railways.

1. **General.**—The bulk of the private railways in Australia has been laid down for the purpose of hauling timber, firewood, sugar-cane, coal and other minerals, and it is not generally used for the conveyance of passengers or for public goods traffic. In many cases the lines are practically unballasted and easily removable.

The railways referred to in this section include only lines open to the public for general passenger and goods traffic. Complete particulars of lines used for special purposes only are not available.

2. **Lines Open for General Traffic, 1949–50.**—The following statement is a summary of the operations of private railways open for general traffic during 1949–50 :—

PRIVATE RAILWAYS : SUMMARY OF OPERATIONS, 1949–50.

State.	Route-Miles Open.	Capital Cost.	Gross Revenue.	Working Expenses.	Train-Miles Run.	Passenger-Journeys.	Goods, etc., Carried.	Employees.
	Miles.	£'000.	£'000.	£'000.	'000.	'000.	'000 tons.	No.
N.S.W. ..	54	1,280	532	383	409	929	727	425
Vic. ..	13	44	10	12	13	5	21	14
Q'land ..	135	113	20	25	58	2	234	26
S.A. ..	51	454	(a)	110	92	..	1,890	117
W.A. ..	277	2,352	319	256	302	19	175	411
Tas. ..	117	949	332	302	208	44	204	329
Australia ..	647	5,192	1,213	1,088	1,082	999	3,251	1,322

(a) Not available.

The table above refers only to private railways open to the public for general passenger and goods traffic. Particulars of the railways included are not complete in many instances and the totals must therefore be regarded as approximate only. In New South Wales and Queensland several lines, although owned by private companies, are operated by the Government Railway Departments, and Government rolling stock is used thereon, while some of the companies are not able to supply particulars of the capital cost, revenue and working expenses of the lines which they operate. In some cases the figures relating to tonnage of goods, etc., include particulars of coal, ores, timber, sugar-cane, etc., carried for private purposes, as details relating to goods carried for the general public are not recorded separately.

C. TRAMWAYS.

1. Systems in Operation.—(i) *General.* Tramway systems are in operation in all the capital cities and in a number of the larger towns of Australia.

Since 1st April, 1947, when the last private company system to operate (the Kalgoorlie-Boulder electric tramway system in Western Australia) was taken over by the Eastern Goldfields Transport Board, all systems have been operated by governmental or municipal authorities. From 1941–42 all systems have been electric.

In many parts of Australia private lines used for special purposes in connexion with the timber, mining, sugar, or other industries are often called tramways, but they are more properly railways (*see* above), and the traffic on them has nothing in common with that of the street tramways for the conveyance of passengers, which are dealt with in the present section.

In recent years there has been considerable replacement of tramway services by omnibus services, one of the more recent of importance affecting the Newcastle system in New South Wales where the change was made on 11th June, 1950. Information on omnibus services is contained in division D. of this chapter.

(ii) *Total Mileage Open and Classification of Lines.* The following tables show for each State the total mileage of tramway lines open for general passenger traffic at 30th June, 1950, classified (*a*) according to the controlling authority; (*b*) according to gauge :—

ELECTRIC TRAMWAYS : ROUTE-MILEAGE OPEN AT 30th JUNE, 1950.

(Miles.)

Particulars—	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
ACCORDING TO CONTROLLING AUTHORITY.							
Government ..	153	172	..	..	44	..	369
Municipal ..	..	..	66	96	7	36	205
Total ..	153	172	66	96	51	36	574
ACCORDING TO GAUGE.							
Gauge—							
5 ft. 3 in. ..	..	5	..	..	..	..	5
4 ft. 8½ in. ..	153	167	66	96	..	..	482
3 ft. 6 in. ..	..	..	..	..	51	36	87
Total ..	153	172	66	96	51	36	574

2. **Summary of Operations, Australia.**—The following table is a summary of the working of all electric tramway systems in Australia for the years 1938–39 and 1945–46 to 1949–50 :—

ELECTRIC TRAMWAYS : SUMMARY OF OPERATIONS, AUSTRALIA.

Particulars.	1938–39.	1945–46.	1946–47.	1947–48.	1948–49.	1949–50.
Average mileage open for traffic Route-miles	586	606	614	606	589	573
Track-miles	1,046	1,056	1,064	1,057	1,048	1,032
Tram Cars .. No.	3,471	3,516	3,527	3,515	3,440	3,281
Cost of construction and equipment .. .. £'000	26,275	27,428	27,067	(b) 27,293	(b) 25,880	(b) 26,219
Cost per route-mile .. £	44,827	45,261	44,083	(b) 45,038	(b) 44,014	(b) 45,758
Gross revenue .. £'000	7,649	11,313	(b) 11,210	(b) 12,456	(b) 12,347	(b) 12,008
Working expenses .. ,,	6,089	8,858	9,495	(b) 11,392	(b) 11,738	(b) 11,992
Net revenue .. ,,	1,560	2,455	1,715	(b) 1,064	(b) 609	(b) 16
Interest .. .. ,,	909	724	628	(b) 654	(b) 507	(b) 480
Proportion of working expenses to gross revenue .. %	79.60	78.29	84.71	(b) 91.46	(b) 95.07	(b) 99.86
Proportion of net earnings to capital cost .. %	5.94	8.95	6.33	(b) 3.90	(b) 2.35	(b) 0.06
Car-miles run '000 miles	81,361	88,870	87,581	87,650	81,311	72,423
Gross revenue per car-mile run d.	22.56	30.55	(b) 30.72	(b) 34.11	(b) 36.44	(b) 39.63
Working expenses per car-mile run .. .. d.	17.96	23.92	26.02	(b) 31.19	(b) 34.64	(b) 39.58
Net revenue per car-mile run d.	4.60	6.63	4.70	(b) 2.92	(b) 1.80	(b) 0.05
Passenger-journeys .. '000	695,476	a1,049,254	ab 986,550	ab 943,097	ab 871,553	ab 754,479
Passenger-journeys per car-mile run .. .. No.	8.55	11.81	ab 11.26	ab 10.76	ab 10.72	ab 10.38
Average gross revenue per passenger-journey d.	2.64	2.59	(b) 2.73	(b) 3.17	(b) 3.40	(b) 3.82
Persons employed at end of year .. .. No.	17,207	20,938	(c) 21,705	(c) 22,266	(c) 19,015	(c) 17,561
Accidents—						
Persons killed	61	97	113	90	81	61
,, injured	2,750	6,297	6,704	5,939	5,518	4,942

(a) Excludes passengers crossing Sydney Harbour Bridge whose journeys did not extend beyond Bridge Section. (b) Includes particulars of Hobart Municipal Council Omnibus Service. (c) Includes motor omnibus employees, South Australia, Western Australia and Hobart Municipal Council Omnibus Services.

3. **Traffic and Accidents.**—Particulars of the traffic of electric tramways and the accidents which occurred in the movement of rolling stock are shown in the following table for each State during 1949–50 :—

ELECTRIC TRAMWAYS : TRAFFIC AND ACCIDENTS, 1949–50.

State.	Average Mileage Open for Traffic.		Number of Tram Cars.	Car-Miles Run.	Passenger-Journeys.	Average Number Passengers per Car-mile.	Accidents. Persons—	
	Route-miles.	Track-miles.					Killed.	Injured.
				'000.	'000.			
New South Wales ..	152	285	1,340	(a)26,368	b 274,681	10.42	21	3,117
Victoria	172	319	870	20,666	225,049	10.89	18	929
Queensland	66	121	432	9,545	115,239	12.07	3	395
South Australia ..	96	166	340	9,420	71,390	7.58	10	156
Western Australia ..	51	84	173	4,009	38,977	9.72	6	279
Tasmania	36	57	126	2,415	(c) 29,143	10.79	3	66
Australia ..	573	1,032	3,281	72,423	754,479	10.38	61	4,942

(a) Estimated. (b) *See* note (a) to preceding table. (c) Includes passengers carried by Hobart Municipal Council Omnibus Service.

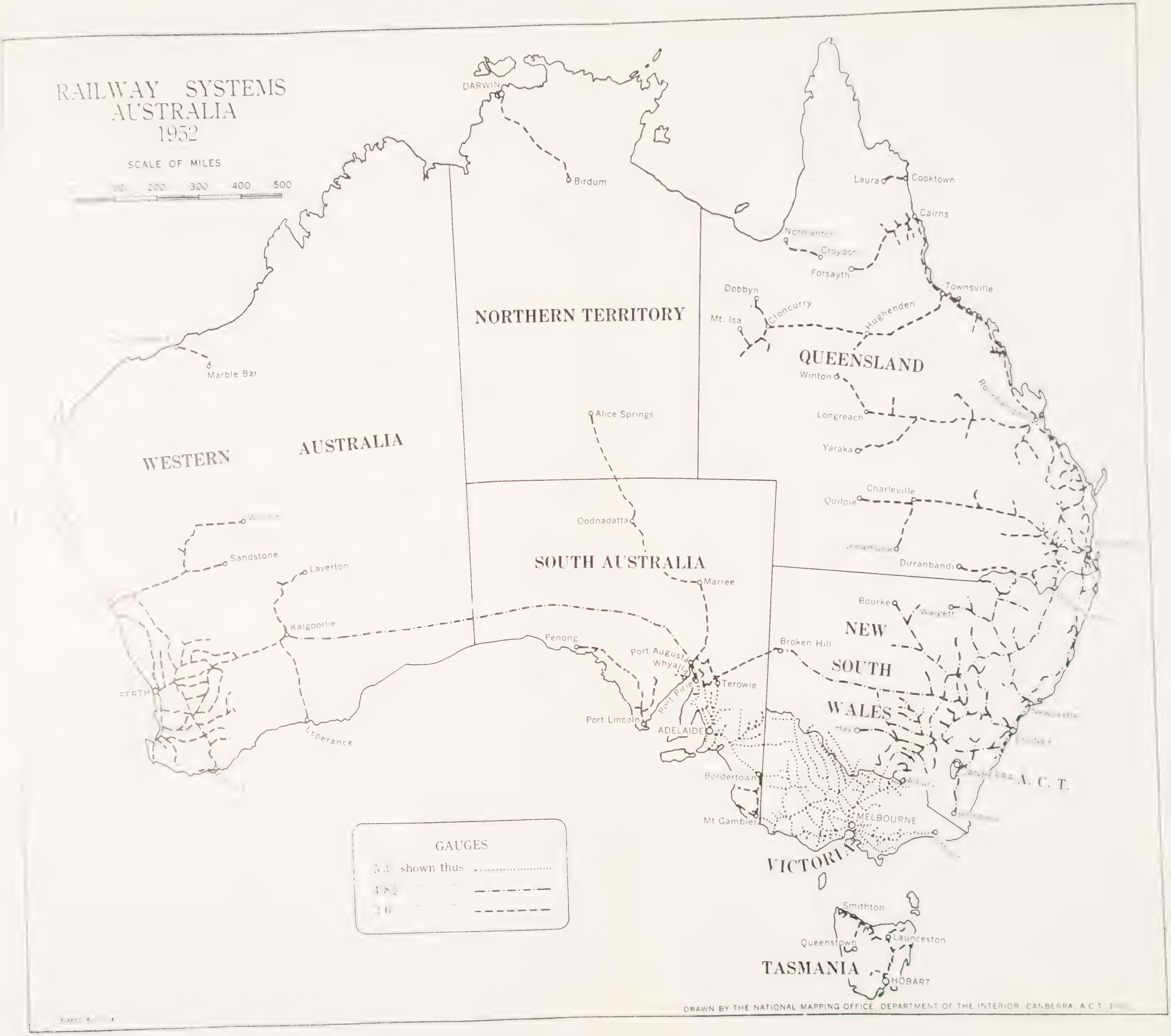
4. **State Details.**—(i) *General.* For details of the various systems operating in the several States *see* Official Year Book No. 37 and issues prior to No. 32.

(ii) *Summary of Operations.* The following table shows particulars of the working of electric tramways in each State of Australia for the years 1945–46 to 1949–50 in comparison with the year 1938–39 :—

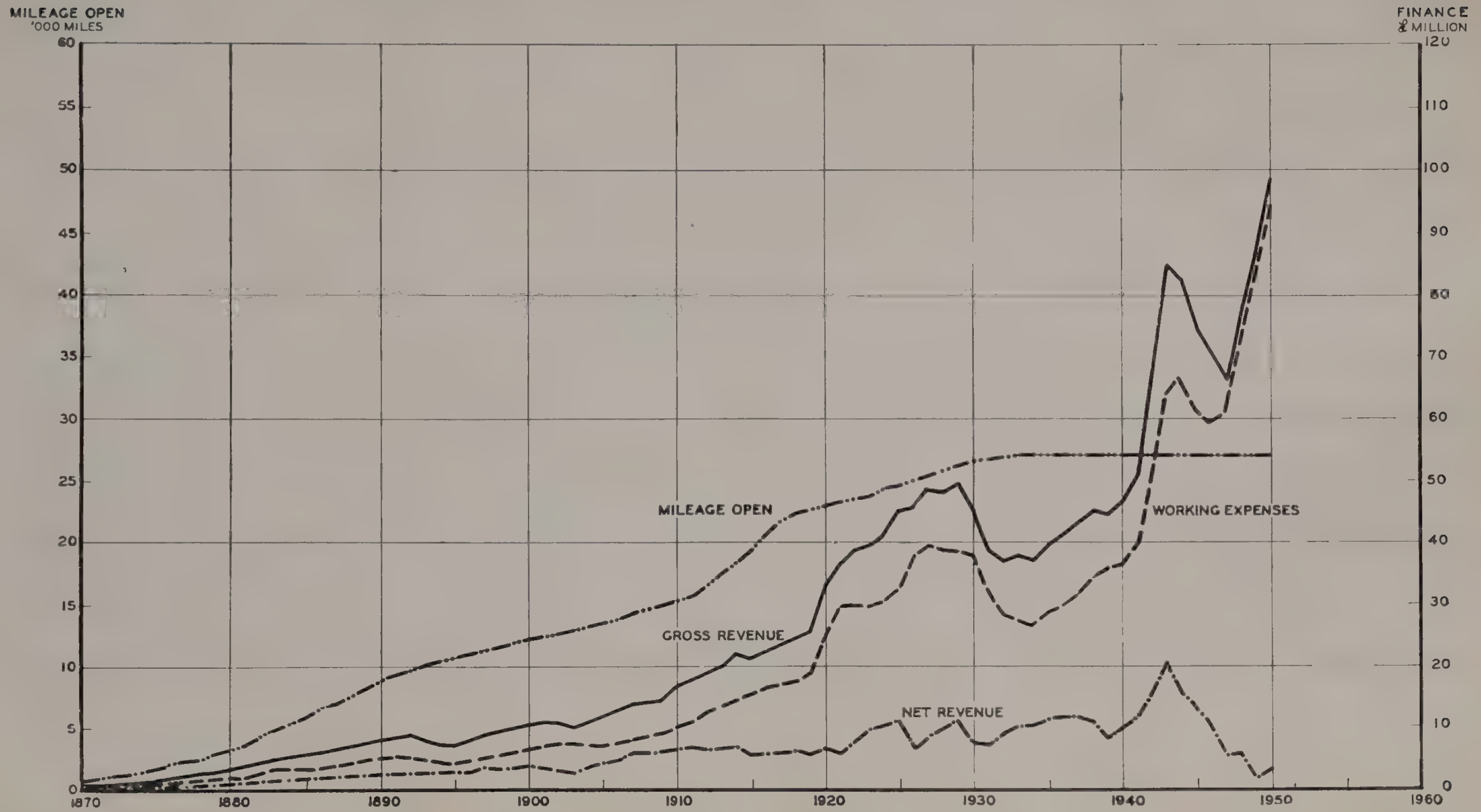
ELECTRIC TRAMWAYS : SUMMARY OF OPERATIONS.

Year ended 30th June—	Mileage Open for Traffic at 30th June. (Route-miles.)	Total Cost of Construction and Equipment. (£'000.)	Gross Revenue. (£'000.)	Working Expenses. (£'000.)	Net Revenue. (£'000.)	Interest. (£'000.)	Proportion of Working Expenses to Gross Revenue. (Per cent.)	Car-Miles Run. ('000.)	Passenger-Journeys. ('000.)	Persons employed at end of year.
					NEW SOUTH WALES.					
1939	182	8,944	3,449	3,080	369	310	89.30	34,941	322,238	8,062
1946	172	8,727	4,370	4,128	242	232	94.47	a 36,200	b 417,344	9,320
1947	172	8,736	4,360	4,378	− 18	220	100.42	a 34,700	b 394,125	9,760
1948	171	8,754	5,310	5,378	− 68	239	101.28	a 34,500	b 367,739	9,651
1949	158	7,168	5,098	5,259	−161	159	103.15	a 29,600	b 312,941	e 6,433
1950	153	6,891	4,984	5,280	−296	155	105.94	a 26,368	b 274,681	e 5,785
					VICTORIA.					
1939	166	8,086	2,112	1,388	724	254	65.72	22,803	175,198	4,355
1946	172	8,897	3,495	2,126	1,369	180	60.81	25,103	306,659	5,305
1947	172	9,120	3,427	2,324	1,103	111	67.82	24,830	285,450	5,322
1948	172	9,276	3,332	2,593	739	107	77.83	25,002	279,451	5,728
1949	172	9,522	3,470	2,970	500	74	85.60	25,563	290,081	5,631
1950	172	9,815	3,105	2,894	211	63	93.22	20,666	225,049	5,156
					QUEENSLAND.					
1939	60	2,391	831	632	199	120	76.05	8,100	91,444	1,911
1946	63	2,358	1,356	985	371	90	72.64	10,107	147,007	2,383
1947	64	2,575	1,337	1,034	303	89	77.32	10,227	135,757	2,521
1948	64	2,962	1,508	1,221	287	91	80.98	10,314	132,107	2,650
1949	66	2,699	1,531	1,246	285	94	81.40	10,085	125,587	2,654
1950	66	2,692	1,526	1,359	167	97	89.09	9,545	115,239	2,517
					SOUTH AUSTRALIA.					
1939	78	4,438	711	494	217	154	69.48	8,712	52,906	(c) 1,750
1946	96	4,812	1,199	934	265	158	77.87	9,518	84,970	2,331
1947	99	3,975	1,228	1,019	209	147	82.92	9,757	83,365	2,284
1948	96	4,013	1,417	1,244	173	151	87.77	9,674	76,819	2,310
1949	96	4,107	1,320	1,287	33	112	97.47	8,924	71,876	2,436
1950	96	4,225	1,469	1,504	− 35	113	102.36	9,420	71,390	2,343

See following page for footnotes.


RAILWAY SYSTEMS
AUSTRALIA
1952
SCALE OF MILES
200
300
400
500
DARWIN
Birdum
Laura
Cooktown
Cairns
Normanton
Croydon
Forsayth
Townsville
Dobbyn
Cloncurry
Mt. Isa
Hughenden
NORTHERN TERRITORY
QUEENSLAND
Winton
Longreach
Yaraka
Alice Springs
Marble Bar
WESTERN
AUSTRALIA
Charleville
Quilpie
Dirranbandi
Oodnadatta
SOUTH AUSTRALIA
Marree
Sandstone
Laverton
Kalgoorlie
Bourke
NEW
SOUTH
WALES
Broken Hill
Penong
Port Augusta
Whyalla
Port Pirie
Terowie
PERTH
Port Lincoln
ADELAIDE
Esperance
Hay
A. C. T.
Bordertown
Mt Gambier
MELBOURNE
VICTORIA
GAUGES
5 3 shown thus
4 8½ " "
3 6 " "
Smithton
Launceston
Queenstown
TASMANIA
HOBART
DRAWN BY THE NATIONAL MAPPING OFFICE, DEPARTMENT OF THE INTERIOR, CANBERRA, A.C.T.

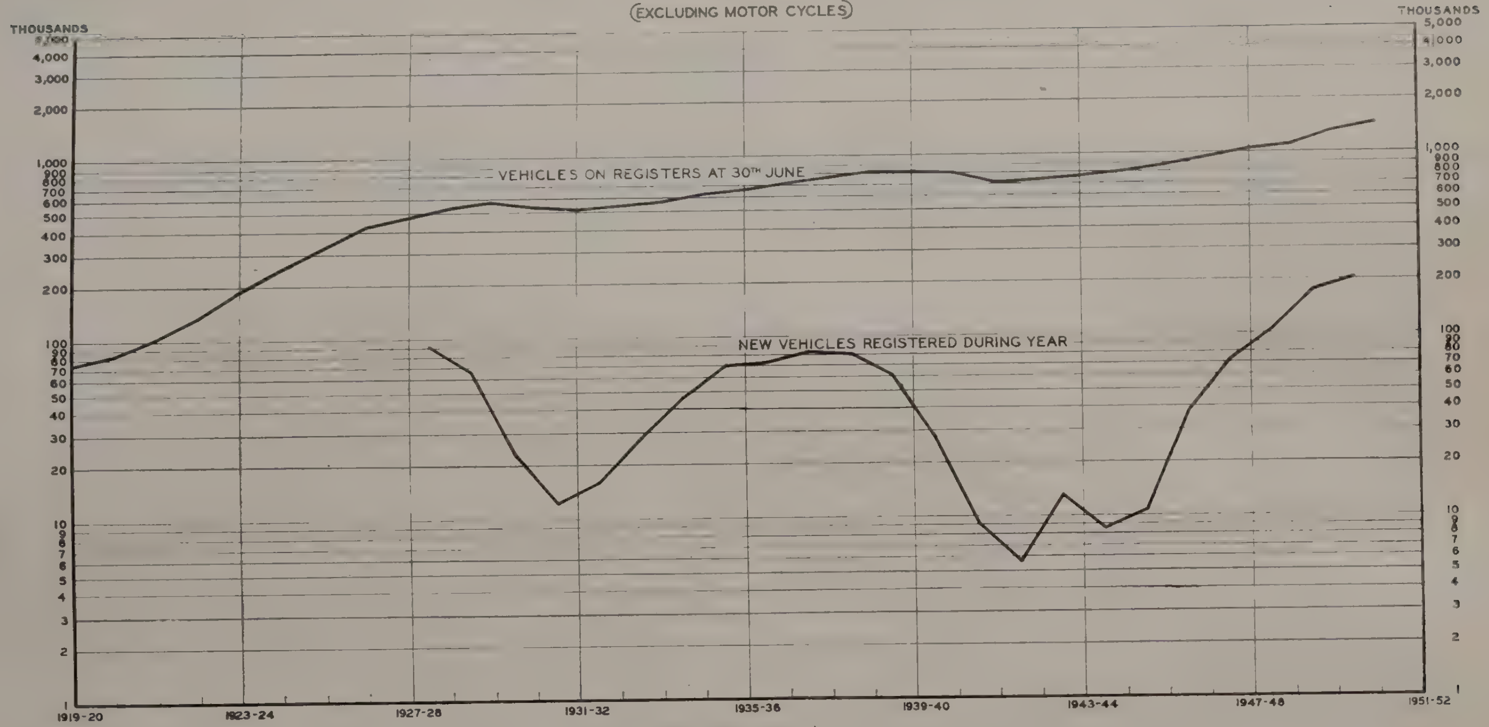
GOVERNMENT RAILWAYS: AUSTRALIA, 1870 TO 1950



MOTOR VEHICLE REGISTRATIONS: AUSTRALIA, 1920 TO 1951

RATIO GRAPH

(EXCLUDING MOTOR CYCLES)



(*See* pages 177–9.)

ELECTRIC TRAMWAYS : SUMMARY OF OPERATIONS—*continued.*

Year ended 30th June—	Mileage Open for Traffic to 30th June. (Route-miles.)	Total Cost of Construction and Equipment. (£'000.)	Gross Revenue. (£'000.)	Working Expenses. (£'000.)	Net Revenue. (£' 000.)	Interest. (£'000.)	Proportion of Working Expenses to Gross Revenue. (Per Cent.)	Car-Miles Run. ('000.)	Passenger-Journeys. ('000.)	Persons employed at end of year.
					WESTERN AUSTRALIA.					
1939	71	1,752	367	342	25	44	93.19	4,756	38,095	792
1946	69	1,867	583	513	70	48	87.93	5,321	59,805	1,100
1947	69	1,869	535	526	9	48	98.32	5,361	53,016	(c) 1,196
1948	68	1,433	550	635	−85	52	115.44	5,431	53,148	(c) 1,238
1949	60	1,469	550	627	−77	53	114.09	4,555	41,389	(c) 1,209
1950	51	1,557	530	599	−69	33	112.97	4,009	38,977	(c) 1,127
					TASMANIA.					
1939	29	664	179	153	26	27	85.47	2,049	15,595	337
1946	34	767	310	172	138	16	55.43	2,629	33,469	499
1947	38	792	(d) 323	214	109	13	66.37	2,706	(d) 34,837	(d) 622
1948	35	(d) 855	(d) 339	(d) 321	(d) 18	(d) 14	d 94.62	2,729	(d) 33,833	(d) 689
1949	36	(d) 915	(d) 378	(d) 349	(d) 29	(d) 15	d 92.19	2,584	(d) 29,679	(d) 652
1950	36	(d) 1,039	(d) 394	(d) 356	(d) 38	(d) 19	d 90.30	2,415	(d) 29,143	(d) 633
					AUSTRALIA.(*f*)					
1939	586	26,275	7,649	6,089	1,560	909	79.60	81,361	695,476	17,207
1946	606	27,428	11,313	8,858	2,455	724	78.29	88,878	1,049,254	20,938
1947	614	27,067	11,210	9,495	1,715	628	84.71	87,581	986,550	21,705
1948	606	27,293	12,456	11,392	1,064	654	91.46	87,650	943,097	22,266
1949	588	25,880	12,347	11,738	609	507	95.07	81,311	871,553	19,015
1950	574	26,219	12,008	11,992	16	480	99.86	72,423	754,479	17,561

(*a*) Estimated. (*b*) *See* note (*a*) to table in para. 2 above. (*c*) Includes motor omnibus employees. (*d*) Includes Hobart Municipal Council Omnibus Service. (*e*) Excludes administrative staff not distributable between bus and tram services. (*f*) *See* notes (*a*) to (*e*).

D. MOTOR OMNIBUS SERVICES.

1. **General.**—Motor omnibus services have been in operation for some years in the capital cities and some of the larger towns of the States of Australia, and in the Australian Capital Territory.

Governmental and municipal authorities operate certain services and the others are run by private operators; in the States the former are run in conjunction with the existing electric tramway systems.

2. **Government and Municipal Services.**—(i) *Summary of Operations*, 1949–50. The following table is a summary of the operations during the year ended 30th June, 1950 of omnibus systems controlled by governmental and municipal authorities.

MOTOR OMNIBUS SERVICES : GOVERNMENT AND MUNICIPAL, 1949–50.

Particulars.		N.S.W.	Vic.	Qld.	S.A.	W.A.	Tas.	A.C.T.	Australia.
Length of route ..	miles	434	67	337	22	1,795	542	11	3,208
Number of buses ..	No.	1,043	330	225	81	138	81	64	1,962
Capital cost	£'000	4,573	1,138	972	355	500	(a) 171	236	7,945
Gross revenue ..	£'000	(b) 4,315	765	517	150	350	(a) 204	93	6,394
Working expenses ..	£'000	(c) 4,173	844	449	187	359	(a) 147	120	6,579
Bus-mileage run	'000 miles	34,302	6,823	4,557	1,503	4,097	1,832	988	54,102
Passenger-journeys ..	'000	d 202,997	59,765	31,160	6,751	14,465	(a) 4,511	4,576	324,225
Persons employed ..	..	(c) 5,617	1,245	477	(f)	(g) 88	(h) 114	180	(i) 7,721

(a) Excludes Hobart Municipal Council Services. (b) Includes £8,000 special grant from Commonwealth Government to Newcastle omnibuses towards losses occasioned by coal strike. (c) Includes estimate of administrative and general charges. (d) Excludes passengers across Sydney Harbour Bridge whose journeys did not extend beyond the Bridge section. (e) Excludes administrative staff not distributable between omnibus and tram services. (f) Not available, employees interchangeable with Electric Tramways and included therein (Section C). (g) Excludes Government Services. (h) Excludes employees of Hobart Municipal Council Service who are interchangeable with Electric Tramways and included therein (*see* Section C.). (i) *See* notes (e) to (h).

(ii) *Summary of Operations, Australia.* The following table is a summary of the working of motor omnibus services in Australia under governmental and municipal control during the five years ended 1949–50.

MOTOR OMNIBUS SERVICES : GOVERNMENT AND MUNICIPAL, AUSTRALIA.

Particulars.		1945–46.	1946–47.	1947–48.	1948–49.	1949–50.
Length of route	miles	852	1,062	2,454	3,268	3,208
Number of buses	..	1,003	1,112	1,423	1,728	1,962
Capital cost	£'000	2,301	2,842	(b) 4,745	(b) 6,867	(b) 7,945
Gross revenue	£'000	2,627	(b) 2,725	(b) 3,862	(b) 5,499	(b) 6,394
Working expenses	£'000	2,836	3,000	(b) 4,100	(b) 5,690	(b) 6,579
Net revenue	£'000	− 209	− 275	(b)− 247	(b)− 191	(b)− 185
Proportion of working expenses to gross revenue	Per cent.	107.95	110.11	b 106.39	b 103.47	b 102.89
Proportion of net revenue to capital cost	Per cent.	−9.08	−9.74	b −5.21	b −2.78	b −2.32
Bus-mileage run ..	'000 miles	30,685	31,716	37,929	48,958	54,102
Gross revenue per bus-mile run	d.	20.55	(b) 20.62	(b) 24.41	(b) 27.08	(b) 28.51
Working expenses per bus-mile run	d.	22.18	22.70	(b) 26.00	(b) 28.02	(b) 29.33
Net revenue per bus-mile run	d.	−1.63	−2.08	b −1.56	b −0.94	b −0.82
Passenger-journeys ..	'000	220,022	b 214,202	b 249,042	b 308,374	b 324,225
Passenger-journeys per bus-mile run ..		7.17	(b) 6.75	(b) 6.57	(b) 6.33	(b) 6.02
Average gross revenue per passenger-journey	d.	2.86	(b) 3.05	(b) 3.72	(b) 4.28	(b) 4.73
Persons employed (a) ..	..	4,712	(b) 4,697	(b) 6,200	(b) 7,077	(b) 7,721

(a) *See* relevant notes to table above. (b) Excludes Hobart Municipal Council Service.

3. **Private Services.**—(i) *General.* Particulars of motor omnibus services under the control of private operators are recorded in the States of New South Wales, Victoria, South Australia and Western Australia only.

In New South Wales, particulars are compiled for the Metropolitan and Newcastle Transport Districts only, and in Victoria for the Metropolitan district only, but in South Australia and in Western Australia all operators throughout the State are represented.

(ii) *Summary of Operations.* The operations of motor omnibus services under the control of private operators in these States during the five years ended June, 1950 are shown in the following table.

MOTOR OMNIBUS SERVICES: PRIVATE.

Year.	Number of Buses.	Capital Cost. (£'000.)	Gross Revenue. (£'000.)	Bus-mileage Run. ('000 miles.)	Passenger-Journeys. ('000.)	Persons Employed.
			NEW SOUTH WALES.(*a*)			
1945–46 ..	555	466	951	12,106	66,117	991
1946–47 ..	615	569	1,065	14,261	73,703	1,085
1947–48 ..	673	783	1,278	15,626	77,985	1,234
1948–49 ..	740	881	1,505	17,490	86,859	1,327
1949–50 ..	795	928	1,698	17,666	98,030	1,437
			VICTORIA.(*b*)			
1949(*c*) ..	430	(*d*)	1,169	17,223	72,311	1,047
1950(*c*) ..	437	(*d*)	1,351	18,968	83,288	1,031
			SOUTH AUSTRALIA.			
	(*b*)					
1945–46 ..	68	(*d*)	325	3,787	8,269	(*d*)
1946–47 ..	81	(*d*)	399	4,929	8,465	(*d*)
1947–48 ..	90	(*d*)	457	5,362	9,774	(*d*)
1948–49 ..	104	(*d*)	515	5,645	10,836	(*d*)
1949–50 ..	112	(*d*)	530	5,900	11,496	(*d*)
			WESTERN AUSTRALIA.			
1945–46 ..	269	218	626	8,514	26,396	671
1946–47 ..	276	309	642	9,210	27,699	758
1947–48 ..	317	455	721	10,214	28,048	865
1948–49 ..	356	591	844	11,318	30,931	937
1949–50 ..	396	736	1,101	13,027	34,998	1,011

(*a*) Metropolitan and Newcastle Transport Districts only. (*b*) Metropolitan area only. (*c*) Year ended 31st December. (*d*) Not available.

E. FERRY (PASSENGER) SERVICES.

1. **General.**—Ferry services to transport passengers are operated in Sydney and Newcastle, New South Wales, on the Swan River at Perth in Western Australia, and on the Derwent River at Hobart and in Devonport, Tasmania. Control is exercised both by Governmental authorities and by private operators. In Victoria and Queensland the services operated are not extensive, and there are no ferry services in South Australia.

2. **Summary of Operations.**—The following statement is a summary of the operations of ferry passenger services in New South Wales, Western Australia and Tasmania during the years 1945–46 to 1949–50 compared with the year 1938–39. Particulars of passengers carried on vehicular ferries are not included.

FERRY (PASSENGER) SERVICES.

Year.	Number of Vessels.	Passenger-Accommodation. (No.)	Passenger-Journeys. ('000.)	Gross Revenue. (£.)	Persons Employed.
NEW SOUTH WALES—SYDNEY AND NEWCASTLE.					
1938–39	54	38,971	27,864	418,500	(a)830
1945–46	46	28,551	35,737	518,867	441
1946–47	46	28,591	31,558	471,976	452
1947–48	47	28,808	28,319	502,947	437
1948–49	46	27,759	23,314	558,390	411
1949–50	44	26,477	21,914	534,853	403
WESTERN AUSTRALIA—PERTH.					
1938–39	6	880	1,184	11,001	25
1945–46	7	1,022	1,443	13,739	25
1946–47	7	1,022	1,367	13,007	25
1947–48	6	957	1,375	13,354	28
1948–49	3	727	928	11,955	21
1949–50	4	811	909	12,669	20
TASMANIA.					
1945–46 (b)	7	1,348	953	15,910	28
1946–47	7	1,348	974	16,029	32
1947–48	7	1,362	987	17,066	31
1948–49	7	1,362	978	17,664	30
1949–50	7	1,570	980	19,782	30

(a) Includes administrative staff. (b) Particulars are not available for earlier years.

F. MOTOR VEHICLES.

1. **Motor Industry.**—Chapter XXIV.—Manufacturing Industry of this Year Book contains summarized information on the motor industry of Australia and includes therein some data on the imports of motor bodies and chassis. Chapter XII.—Trade contains further data on imports, including those of petroleum products.

2. **Registration.**—The arrangements for the registration of motor vehicles and the licensing of drivers and riders thereof are not uniform throughout Australia. Methods of registration, licence fees payable, etc., in each State are referred to in Official Year Book No. 16, pp. 337–40, and later issues.

3. **Taxi-cabs and Other Hire Vehicles.**—In all the capital cities of the States and in many of the provincial centres taxi-cabs and other vehicles ply for hire under licence granted either by the Commissioner of Police or the local government authority concerned. As most of these vehicles are independently controlled by individuals or small companies, it has not been possible to obtain complete data in respect of their operations.

4. **Motor Omnibuses.**—In both urban and provincial centres motor omnibus traffic has assumed considerable proportions during recent years and in some States the railway and tramway systems run motor services complementary to their main services. There has been a considerable replacement also, during the last few years, of existing tramway services by trolley-bus and motor-bus services. (*See* Divisions C. and D. of this Chapter).

5. **Motor Vehicles on the Register, etc.**—(i) *Year* 1949–50. Particulars of the registration of motor vehicles, licences issued and revenue received for 1949–50 are contained in the following table. A graph showing motor vehicle registrations since the year 1920 may be found on p. 172.

MOTOR VEHICLES : REGISTRATIONS AND REVENUE, 1949–50.

(Excluding Defence Service Vehicles.)

State or Territory.	Number of Motor Vehicles Registered at 30th June, 1950.(*a*) Motor Cars.(*b*)	Commercial Vehicles (*c*)	Motor Cycles.	Total.	Per 1,000 of Population at 30th June, 1950.	Number of Drivers' and Riders' Licences in force at 30th June, 1950.	Gross Revenue derived from— Vehicle Registrations and Motor Tax.	Drivers' and Riders', etc., Licences.	Other Sources.	Total.
							£	£	£	£
N.S. Wales	272,985	162,625	42,461	478,071	148.23	676,589	3,477,373	454,210	786,266	4,717,849
Victoria ..	226,513	*d*139,143	34,231	399,887	181.53	525,709	2,783,555	131,437	360,983	3,275,975
Q'land ..	99,846	93,921	19,152	212,919	179.86	264,613	1,172,266	100,045	448,577	1,720,888
S. Australia	91,281	41,252	19,371	151,904	216.93	186,756	1,119,927	102,513	61,504	1,283,944
W. Aust. ..	48,485	42,010	12,890	103,385	185.31	133,954	713,440	44,959	78,666	837,065
Tasmania ..	25,175	12,679	4,930	42,784	153.14	48,715	303,456	24,373	75,807	403,636
Nor. Terr. ..	693	2,720	383	3,796	248.06	2,520	6,702	1,713	..	8,415
A.C.T. ..	2,578	1,334	448	4,360	182.69	6,379	19,315	3,259	186	22,760
Australia	767,556	*e*495,684	133,866	1,397,106	170.68	1,845,265	9,596,034	862,509	1811989	12270532

(*a*) Excludes Trailers (68,803), Road Tractors, etc. (8,925), and Dealers' Plates (5,390). (*b*) Includes Taxis and Hire Cars. (*c*) Includes Lorries, Vans, Buses and Utility Trucks. (*d*) Includes vehicles registered as primary producers (69,380). (*e*) Includes primary producers' vehicles, Victoria.

(ii) *Years* 1938–39 *and* 1945–46 *to* 1949–50. The following table shows the number of vehicles registered, licences issued, and revenue received therefrom during each of the years 1945–46 to 1949–50 in comparison with 1938–39 :—

MOTOR VEHICLES : REGISTRATIONS AND REVENUE, AUSTRALIA.

(Excludes Defence Service Vehicles.)

Year.	Number of Motor Vehicles Registered at 30th June. Motor Cars.	Commercial Vehicles. (*a*)	Motor Cycles.	Total.	Per 1,000 of Population at 30th June.	Number of Drivers' and Riders' Licences in force at 30th June.	Gross Revenue derived from— Vehicle Registrations and Motor Tax.	Drivers' and Riders', etc., Licences.	Other Sources.	Total.
							£	£	£	£
1938–39	562,271	258,025	79,237	899,533	129.09	1,238,497	6,318,435	508,387	257,652	7,084,474
1945–46	522,615	333,129	72,701	928,445	124.35	1,378,040	5,882,844	557,728	378,732	6,819,304
1946–47	550,400	375,646	86,712	1,012,758	133.59	1,499,765	6,562,232	633,993	476,001	7,672,226
1947–48	593,077	414,072	100,196	1,107,345	143.62	1,601,394	7,437,294	650,294	955,798	9,043,386
1948–49	655,497	452,147	117,133	1,224,777	154.80	1,700,608	8,276,780	713,509	1,442,796	10433085
1949–50	767,556	495,684	133,866	1,397,106	170.68	1,845,265	9,596,034	862,509	1,811,989	12270532

(*a*) Includes primary producers' vehicles, Victoria.

(iii) *Relation to Population.* The table hereunder shows the number of vehicles (excluding motor cycles) registered per 1,000 of population in each State and Territory at 31st December, 1921, and at 30th June for each of the years 1939 and 1946 to 1950 :—

MOTOR VEHICLES (EXCLUDING MOTOR CYCLES) REGISTERED PER 1,000 OF POPULATION.

(Excludes Defence Service Vehicles.)

Date.	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
31st Dec., 1921 ..	15	16	8	24	12	13	(a)	..	15
30th June, 1939 ..	107	125	118	137	133	96	218	174	118
" 1946 ..	99	123	124	143	122	100	318	147	115
" 1947 ..	106	131	133	152	129	107	259	148	122
" 1948 ..	114	140	140	162	137	115	249	141	131
" 1949 ..	122	149	149	174	148	127	223	149	140
" 1950 ..	135	166	164	189	162	135	223	164	154

(a) Not available.

(iv) *Revenue per Motor Vehicle.* The following table shows the average revenue per vehicle (excluding motor cycles) received in respect of registration and motor tax in the several States for the year 1938–39 and for each year from 1945–46 to 1949–50. In some States the revenue from motor tax on cycles is not separately recorded. In these cases an amount based on the flat rate provided for cycles in the registration acts has been deducted from the total revenue received, and the average amounts shown must therefore be regarded as approximate only. Registration fees and motor taxes were reduced, during the year 1941–42, in the States of New South Wales, Victoria and Western Australia. In South Australia the reduction was made in the last half of 1940–41 and in Queensland and in the Australian Capital Territory in July, 1942. The reduction was generally 25 per cent., except in the case of New South Wales, where it was 20 per cent. and in the Australian Capital Territory where fees were reduced by 15 per cent. For the State of Western Australia the reduction in registration fees ceased to operate with the commencement of the 1947–48 registration year, and for South Australia in August, 1948. The reduction ceased to operate for New South Wales in December, 1949, for Victoria in February, 1950, for Queensland in August, 1950, and for the Australian Capital Territory in December, 1950. In Tasmania the increase of motor registration fees is at present (June, 1951) under discussion.

AVERAGE REVENUE PER VEHICLE FROM REGISTRATION FEES AND MOTOR TAX (EXCLUDING MOTOR CYCLES).

(£ s. d.)

State or Territory.	1938–39.	1945–46.	1946–47.	1947–48.	1948–49.	1949–50.
New South Wales ..	7 19 10	7 15 7	7 18 11	8 1 3	7 18 8	7 18 11
Victoria	7 6 0	6 13 6	7 1 0	7 3 9	7 1 2	7 10 6
Queensland.. ..	6 15 11	5 19 1	6 1 9	6 2 6	6 1 1	5 18 0
South Australia ..	7 9 10	6 6 8	6 8 6	6 8 6	8 2 3	8 4 7
Western Australia ..	6 6 0	5 8 1	5 9 4	8 11 9	7 5 2	7 14 10
Tasmania	6 13 3	7 19 6	8 0 4	8 1 8	7 17 9	7 17 9
Northern Territory ..	1 11 0	1 12 9	1 9 6	1 19 2	1 18 1	1 17 1
Aust. Cap. Territory..	5 15 2	4 14 1	4 16 6	5 3 1	4 17 0	4 16 8
Australia ..	7 7 9	6 16 6	7 0 8	7 6 10	7 6 8	7 10 0

6. **New Vehicles Registered.**—(i) *Year* 1949–50. The following table shows the number of new vehicles registered in each State during 1949–50 :—

NEW MOTOR VEHICLES REGISTERED, 1949–50.
(Excludes Defence Service Vehicles.)

Vehicles.	N.S.W.	Vic.	Q'land.	S.A.(b)	W.A.	Tas.	A.C.T.	Total. (b)
Motor cars	41,229	32,321	15,216	13,582	8,950	3,311	403	115,012
Commercial vehicles, etc. ..	20,428	a 17,240	8,419	5,304	4,831	1,565	159	57,946
Motor cycles	8,659	6,440	3,747	4,564	2,356	886	130	26,782
Total	70,316	56,001	27,382	23,450	16,137	5,762	692	199,740

(a) Includes vehicles registered as primary producers' vehicles. (b) Excludes Northern Territory.

(ii) *Years* 1938–39 *and* 1945–46 *to* 1949–50. Particulars of the number of new vehicles registered in Australia during the years 1938–39 and 1945–46 to 1949–50 are shown in the following table :—

NEW MOTOR VEHICLES REGISTERED : AUSTRALIA.(a)
(Excludes Defence Service Vehicles.)

Vehicles.	1938–39.	1945–46.	1946–47.	1947–48.	1948–49.	1949–50.
Motor cars	54,107	2,123	21,237	42,745	66,471	115,012
Commercial vehicles, etc. (b)	24,927	8,686	16,317	28,769	36,678	57,946
Motor cycles	7,370	1,953	8,220	14,308	22,226	26,782
Total	86,404	12,762	45,774	85,822	125,375	199,740

(a) Excludes Northern Territory. (b) Includes vehicles registered as primary producers' vehicles, Victoria.

7. **World Motor Vehicle Statistics, 1951.**—In previous issues of the Year Book tables have been included to show particulars of motor vehicle registrations throughout the world. This information has been derived from the results of the World Motor Census, conducted by the *American Automobile* magazine. Detailed information is not repeated in this issue, but the following particulars from the same source show that there were 68,695,200 motor cars, trucks and buses registered in various countries of the world at 1st January, 1951. This is an increase of 10.0 per cent. on the figure for the previous year, 62,463,794, and is the highest figure attained to that date. Of these vehicles, 48,057,945, or 70.0 per cent. of the world total, were in the United States of America and Australian registrations amounted to 2.0 per cent.

8. **Survey of Motor Vehicles, 1947–48.**—A survey of motor vehicles on the roads (excluding motor cycles) during 1947–48 was carried out by the Commonwealth Statistician in collaboration with the Government Statisticians and Road Transport authorities in each State. The survey covered such items as make, year of model, type of vehicle, horse-power and carrying capacity, etc., normally shown on motor registration forms, and also supplementary particulars such as those regarding purpose (private or business) obtained either as special addenda to the registration form of 1947–48 or on special forms collected with registration papers.

Results were published in a series of bulletins dealing with each State separately and with the Commonwealth as a whole, and summarized particulars were included in *Transport and Communication Bulletin* No. 40—1948–49 published by this Bureau. It is therefore not intended to repeat the information in the Year Book, but the brief mention of some of the general results may be of interest.

The survey covered about 990,000 motor vehicles throughout Australia, and of these about one-third were employed for private use and the remainder for business or part business use. There were 607,000 cars recorded (61 per cent.), 165,000 utilities (17 per cent.), 24,000 panel vans (2 per cent.), 154,000 trucks, lorries, etc. (16 per cent.) and 40,000 other and "not stated" vehicles (4 per cent.). Of vehicles whose year of model was stated, 28 per cent. were 1929, or earlier models, 44 per cent. were 1935 or earlier, and 80 per cent. were 1940 or earlier. Motor cars comprised 338,000 sedans (60 per cent. of all the cars whose type of body was stated), 25,000 coupés and coupé-sedans (4 per cent.), 45,000 roadsters (8 per cent.), 155,000 tourers (28 per cent.), and 44,000 cars whose type of body was not stated. Similar surveys, but of modified scope, have been carried out for later periods in respect of *new* vehicles only.

The results have been published by this Bureau in mimeograph form and in *Transport and Communication Bulletin* No. 41—1949–50.

G. TRAFFIC ACCIDENTS.

1. **General.**—Previously it has not been possible to make proper comparisons between States of the number of accidents recorded, because of the differences in legislation regarding the reporting of accidents and the degree to which the legislation could be enforced. However, arrangements were made, in co-operation with the Australian Road Safety Council and the various police and transport authorities concerned, to obtain the numbers of road traffic accidents on a comparable basis from all States in respect of the year ended 30th June, 1950. This has been achieved by restricting the statistics so as to relate only to those accidents which result in death or bodily injury to any person, or in damage in excess of £10 to property. It should be noted, however, that the comparability of the statistics between States even on this basis still depends on the degree to which accidents so defined are in fact recorded by the police. Except in the case of Western Australia, where statistics shown relate to all accidents which occurred in the metropolitan area and to those which involved fatal or "near-fatal" injury only in the remainder of the State, it is considered that there is little difference in recording of accidents as between States for 1949–50.

For further particulars of traffic accidents *see Transport and Communication Bulletin* No. 41, 1949–50.

2. **Total Accidents Reported, 1949–50.**—(i) *Summary.* The following table shows, for each State and the Australian Capital Territory during the year 1949–50, the total accidents reported to the police, the number of accidents involving casualties, and the number of persons killed or injured—totals and per 1,000 of population and per 100 motor vehicles registered.

ACCIDENTS (KNOWN TO THE POLICE) WHICH OCCURRED IN PUBLIC THOROUGHFARES: ACCIDENTS RECORDED AND CASUALTIES, 1949–50.

State or Territory.	Total Accidents Reported. (*a*)	Accidents Involving Casualties.	Persons Killed.			Persons Injured.(*b*)		
			Number.	Per 1,000 of Mean Population.	Per 100 Motor Vehicles Registered.	Number.	Per 1,000 of Mean Population.	Per 100 Motor Vehicles Registered.
N.S.W. ..	16,189	8,549	561	0.18	0.12	10,405	3.28	2.18
Victoria ..	13,289	8,618	501	0.23	0.13	10,538	4.86	2.64
Queensland ..	7,275	3,958	202	0.17	0.09	4,771	4.10	2.24
South Australia	5,050	2,154	170	0.25	0.11	2,514	3.66	1.66
W. Australia(*c*)	2,720	1,612	142	0.26	0.14	1,929	3.53	1.87
Tasmania ..	2,200	969	64	0.23	0.15	1,154	4.16	2.70
Aust. Cap. Terr.	236	105	3	0.13	0.07	136	6.02	3.12
Total, 1949–50	46,959	25,965	1,643	0.20	0.12	31,447	3.91	2.26
Total, 1948–49	(*d*)	(*e*) 21,035	1,424	0.18	0.12	(*f*) 25,310	(*f*) 3.25	(*f*) 2.07

(*a*) Total accidents causing death or injury to persons or damage exceeding £10 to property. (*b*) Persons injured to an extent requiring surgical or medical treatment. (*c*) Includes for the Metropolitan Area all accidents causing death or injury to persons or damage exceeding £10 to property, and, for the remainder of the State, only those accidents causing fatal or "near-fatal" injuries. (*d*) Comparable figure not available. (*e*) Accidents involving persons killed, and persons injured to an extent requiring surgical or medical treatment, except in Western Australia where only persons injured and detained in hospital are included. (*f*) As defined in note (*e*).

(ii) *Riders, Drivers, Pedestrians, etc., Killed or Injured.* The following table shows the number of persons killed and the number injured during 1949–50 in each State and the Australian Capital Territory, classified into riders, drivers, pedestrians, etc.

ACCIDENTS (KNOWN TO THE POLICE) WHICH OCCURRED IN PUBLIC THOROUGHFARES : RIDERS, DRIVERS, PEDESTRIANS, ETC., KILLED OR INJURED, 1949–50.

Riders, Drivers, Pedestrians, etc.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	A.C.T.	Total.
PERSONS KILLED.								
Drivers of Motor Vehicles	73	64	27	23	25	9	..	221
Motor Cyclists	105	120	45	53	46	15	..	384
Pedal Cyclists ..	41	40	17	20	13	9	2	142
Passengers (all types)(*a*) ..	142	133	57	37	31	17	..	417
Pedestrians	194	138	54	35	27	13	1	462
Other Classes (*b*) ..	6	6	2	2	..	1	..	17
Not Stated	..	..	..	..	..	..	..	..
Total	561	501	202	170	142	64	3	1,643
PERSONS INJURED.								
Drivers of Motor Vehicles	1,571	1,585	733	312	(*c*) 237	169	24	4,631
Motor Cyclists ..	1,852	1,679	1,035	688	405	267	25	5,951
Pedal Cyclists	988	1,464	683	410	327	158	19	4,058
Passengers (all types)(*a*) ..	3,492	3,298	1,455	691	618	349	49	9,952
Pedestrians	2,420	2,422	820	394	330	197	17	6,600
Other Classes (*b*) ..	82	90	45	10	12	7	2	248
Not Stated	..	..	..	..	..	7	..	7
Total	10,405	10,538	4,771	2,514	1,929	1,154	136	31,447

(*a*) Includes pillion riders. (*b*) Includes tram-drivers, riders of horses and drivers of animal-drawn vehicles. (*c*) Includes all persons injured (i.e. requiring surgical or medical treatment) in the Metropolitan area but only those suffering " near-fatal " injuries in the remainder of the State.

(iii) *Ages of Persons Killed or Injured.* The following table shows the age-groups of persons killed or injured in traffic accidents in each State and the Australian Capital Territory during 1949–50.

ACCIDENTS (KNOWN TO THE POLICE) WHICH OCCURRED IN PUBLIC THOROUGHFARES : AGES OF PERSONS KILLED OR INJURED, 1949–50.

Age-group.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	A.C.T.	Total.
PERSONS KILLED.								
Under 5	21	16	9	6	4	3	..	59
5 and under 7 ..	13	7	7	5	1	2	..	35
7 " " 17 ..	35	32	15	8	8	9	..	107
17 " " 30 ..	184	161	70	79	53	25	1	573
30 " " 40 ..	84	73	25	18	26	8	..	234
40 " " 50 ..	57	69	22	17	12	8	1	186
50 " " 60 ..	41	40	18	12	15	1	..	127
60 and over	123	103	36	25	23	8	1	319
Not Stated	3	..	..	..	..	..	..	3
Total	561	501	202	170	142	64	3	1,643
PERSONS INJURED.								
Under 5	306	290	124	79	(*a*) 49	29	2	879
5 and under 7 ..	257	259	87	56	40	32	1	732
7 " " 17 ..	1,064	1,142	571	249	216	127	10	3,379
17 " " 30 ..	4,051	4,036	2,105	1,102	814	446	73	12,627
30 " " 40 ..	1,407	1,685	607	346	227	156	21	4,449
40 " " 50 ..	1,095	1,255	435	224	198	80	7	3,294
50 " " 60 ..	868	886	366	198	106	63	6	2,493
60 and over	989	967	412	179	158	76	8	2,789
Not Stated	368	18	64	81	121	145	8	805
Total	10,405	10,538	4,771	2,514	1,929	1,154	136	31,447

(*a*) Includes all persons injured (i.e. requiring surgical or medical treatment) in the Metropolitan area but only those suffering " near-fatal " injuries in the remainder of the State.

(iv) *Accidents Recorded and Casualties, classified according to Type of Vehicle, Road User, etc., Involved.* The following table shows, for Australia during 1949–50, the number of accidents in which each of several classes of vehicles, road users, etc., were involved. The accidents involving casualties and persons killed and injured are similarly classified.

ACCIDENTS (KNOWN TO THE POLICE) WHICH OCCURRED IN PUBLIC THOROUGHFARES : ACCIDENTS RECORDED AND CASUALTIES, CLASSIFIED ACCORDING TO TYPE OF VEHICLE, ROAD USER, ETC., INVOLVED, AUSTRALIA, 1949–50.(*a*)

Particulars.	Motor Vehicle.	Motor Cycle.	Pedal Cycle.	Tram.	Animal and Animal-drawn Vehicle.	Pedestrian.	Other Vehicle.
Total Accidents Reported(*b*) ..	40,702	9,064	4,466	1,447	1,686	6,693	997
Accidents Involving Casualties ..	20,209	7,640	4,350	617	727	6,668	560
Persons Killed ..	1,259	505	157	39	42	470	64
Persons Injured(*c*) ..	24,884	8,870	4,566	756	820	6,801	583

(*a*) It should be noted that, as accidents and casualties classified according to one type of road user, etc., may also be classified according to another, these totals cannot be added across to obtain grand totals. The table excludes 81 accidents reported for which no cause was stated, of which 66 involved casualties—4 persons killed and 68 persons injured. (*b*) Total accidents causing death or injury to persons or damage exceeding £10 to property. (*c*) Persons injured to an extent requiring surgical or medical treatment.

It will be seen, therefore, that motor vehicles were involved in 40,702 accidents, of which 20,209 involved casualties which numbered 1,259 persons killed and 24,884 persons injured. The 40,702 accidents in which motor vehicles were involved comprised 15,952 collisions with other motor vehicles, 4,895 with motor-cycles, 2,997 with pedal cycles, 973 with trams, 1,110 with animals and animal-drawn vehicles, 5,207 with pedestrians, 4,065 with fixed objects, 235 with vehicles other than those mentioned, 4,637 instances of overturning or leaving the roadway, and 631 accidents to passengers only. The particulars of accidents in which motor-cycles, pedal cycles, etc., were involved with motor vehicles are also included under their respective headings in the table above. Consequently, since the figures in each column refer to the *total* accidents in which the particular type of vehicle, etc., was involved, any aggregation across would result, through duplication, in considerable overstatement of the actual totals.

3. **Persons Killed or Injured in Traffic Accidents, 1938–39 and 1945–46 to 1949–50.**—The following table shows the numbers of persons killed or injured in traffic accidents in each State and the Australian Capital Territory during the years 1938–39 and 1945–46 to 1949–50 :—

ACCIDENTS (KNOWN TO THE POLICE) WHICH OCCURRED IN PUBLIC THOROUGHFARES : PERSONS KILLED OR INJURED.

Year.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	A.C.T.	Total.	
								No.	Per 100 Motor Vehicles Registered.
				PERSONS KILLED.					
1938–39 ..	552	418	173	118	126	43	3	1,433	0.16
1945–46 ..	483	336	169	97	127	58	..	1,270	0.14
1946–47 ..	508	386	188	101	101	61	1	1,346	0.13
1947–48 ..	508	362	182	128	127	40	1	1,348	0.12
1948–49 ..	564	426	169	119	90	53	3	1,424	0.12
1949–50 ..	561	501	202	170	142	64	3	1,643	0.12
				PERSONS INJURED.					
	(*a*)	(*a*)	(*a*)	(*b*)	(*c*)	(*a*)	(*a*)		
1938–39 ..	8,388	7,428	4,026	3,536	937	1,300	38	25,653	2.85
1945–46 ..	7,342	6,202	3,656	2,333	756	799	26	21,114	2.27
1946–47 ..	8,752	7,810	3,799	2,768	780	805	45	24,759	2.45
1947–48 ..	8,557	7,210	3,799	2,927	668	838	63	24,062	2.18
1948–49 ..	9,253	8,225	4,017	(*a*)2,025	747	952	91	25,310	2.07
1949–50 ..	10,405	10,538	4,771	(*a*)2,514	(*a*)1,929	1,154	136	31,447	2.26

(*a*) Persons injured to an extent requiring surgical or medical treatment. (*b*) Figures shown for years prior to 1948–49 include all persons injured whether surgical or medical treatment was required or not. Figures for 1948–49 and subsequent years relate to persons requiring surgical or medical treatment. (*c*) Figures shown for years prior to 1949–50 include persons injured and detained in hospital only. Figures for 1949–50 relate to persons requiring surgical or medical treatment. Includes all persons injured (i.e. requiring surgical or medical treatment) in the metropolitan area but only those suffering "near-fatal" injuries in the remainder of the State.

H. AVIATION.

1. **Historical.**—A short review of the progress of civil aviation in Australia up to the date of foundation of a Civil Aviation Administration appears in Official Year Book No. 16, pp. 334–5.

2. **Foundation and Administration of Civil Aviation.**—A brief account of the foundation and objects of this Administration will be found in Official Year Book No. 19, p. 299. Official Year Book No. 38 and earlier issues contain information on the control of civil aviation by the Board (1936) and later (1939) by the Department of that name. The Acts defining the broad principles of operation of the administration of civil aviation and the Regulations amplifying them, and the principal functions of the administration are also described.

A recent change in the administration of the Department is its regional organization based on State boundaries, except that one region embraces Victoria and Tasmania. The regions are :—New South Wales, with regional office at Mascot ; Victoria-Tasmania, based on Melbourne ; Western Australia, office at Perth ; Queensland, office at Brisbane ; South Australia, office at Mile End ; Northern Territory, office at Darwin ; Papua-New Guinea, with regional office at Port Moresby.

The work of the Department is divided into two main sections, Administrative and Technical. The three Administrative Divisions under the control of an Assistant Director-General (Administrative) are :—(i) The Division of Air Transport and External Relations whose functions relate to the promotion and economic supervision of air transport ; (ii) the Division of Administration and Personnel which is concerned with the co-ordination of all departmental personnel requirements and associated matters ; and (iii) the Division of Finance and Stores which administers the financial aspects and the stores organization of the Department. The three Technical Divisions administered by the Assistant Director-General (Technical) are :—(i) The Division of Air Navigation which attends to the preparation, amendment and enforcement of all rules and regulations, etc., pertaining to air navigation, particularly from the aspect of safety ; (ii) the Division of Airways whose functions cover the planning, specification, construction, maintenance and operation of all airway operational navigational elements, excluding such elements as come within the normal scope of architectural and civil engineering ; and (iii) the Division of Airports which is concerned with airport planning and design, specification of airport works projects, maintenance of airports, seadromes and buildings and other projects of a dominantly civil engineering or architectural character.

The Accident Investigation Branch is an independent section of Head Office, concerned mainly with major accidents. The Chief Inspector of Accidents Investigation and his team of experts are directly responsible to the Director-General.

Full details of the functions of the three Administrative Divisions and the three Technical Divisions may be found in Official Year Book No. 38.

3. **International Activity.**—(i) *International Organizations.* A full report of the formation of the International Civil Aviation Organization, the Commonwealth Air Transport Council and the South Pacific Air Transport Council appears in Official Year Book No. 37 and particulars of subsequent activity in the international field were included in issue No. 38. Further ratifications of the Chicago Convention raised the membership of the International Civil Aviation Organization to 57 States as at 30th June, 1950. In accordance with the ICAO policy of broadening Council representation by enabling the views of non-Council member States to be presented, Australia and New Zealand agreed that the representative of Australia on the Council will keep the New Zealand authorities informed on all matters before the Council or Committees under its control which are of particular interest to New Zealand, and will also on request present any views which the New Zealand Government would wish to have submitted. The Second Annual Assembly in June, 1948 resolved that the Council should establish the Air Navigation Commission as provided for in the Convention to replace the Air Navigation Committee which had functioned since the interim period. Contracting States were invited to submit nominations to this Commission. The Convention provides for a Commission of twelve members. As nominations were received from nine Contracting

States only, the Commission has been established with this limited membership. Australia did not nominate, as a suitable officer could not be spared from the heavy work programme of the Department of Civil Aviation.

The Air Transport Committee has been established with a full membership of twelve members nominated by the Council from among its members.

Australia was represented at the following meetings convened by ICAO :—

Communications, 3rd Session, Montreal; Operations, 3rd Session, Montreal; Airworthiness, 3rd Session, Montreal; Notams Special Meeting, Montreal; Legal Committee, 3rd Session, Lisbon and 4th Session, Montreal; North Pacific Regional Air Navigation Meeting, Seattle; South-East Asia Regional Air Navigation Meeting, New Delhi; African-Indian Ocean Regional Air Navigation Meeting, London; Divisional meetings of the Air Navigation Commission, Legal, 5th Session, Taormina and 6th Session, Montreal; South-East Asia Frequency Assignment Planning Committee, New Delhi and I.T.U., 2nd Aeronautical Radio Conference, Geneva.

Australia was represented as an observer by the Civil Air Attaché, Washington, at the International Telecommunications Union Frequency Conference for Region II., held at Washington.

The third Annual Assembly of ICAO was held in Montreal with 36 Contracting States and observers from the United Nations present. The work of the Assembly was limited to administrative and finance matters. Australia was represented. At the fourth Assembly, 42 States were present.

The third Meeting of the South Pacific Air Transport Council was held in Wellington in December, 1948 and was attended by all partner Governments. It was the first meeting attended by Canada as a full member. The fourth Meeting was held in Melbourne during May, 1950.

(ii) *International Air Services.* Events which have transpired in connexion with international air services since the developments referred to in the previous issue of the Year Book are outlined in the following paragraphs. Special committees were formed to deal solely with matters concerned with the domestic administration of British Commonwealth Pacific Airlines Limited, and Tasman Empire Airways Limited

A delegation visited Karachi in June, 1949 to complete an Air Transport Agreement with Pakistan, authorizing the continuance of Qantas Empire Airways operations on the Australia-United Kingdom service through Pakistan, with the right to pick up and set down commercial traffic at Karachi.

The Australia-India Air Transport Agreement was signed at New Delhi in July, 1949. This followed negotiations originally begun in September, 1948.

The Australia-Ceylon Agreement was signed at Canberra in January, 1950.

The Governments of Australia, New Zealand and the United Kingdom approved the text of an agreement known as " The Inter-Governmental Agreement for the Continued Operation of the Regular Services between Australia and New Zealand by Tasman Empire Airways Ltd."

The frequency of the Constellation service to United Kingdom was increased during the years 1948–49 and 1949–50 to eight per fortnight in each direction, the Hythe service was reduced to once weekly and then discontinued, and the Lancastrian cargo service to the United Kingdom was increased to two trips per week.

Restrictions on dollar expenditure affected the volume of traffic on the services between Australia and North America. During the years 1948–49 and 1949–50 Pan-American Airways adjusted their fares and diverted some traffic to the Pacific route.

The Australian Government purchased DC6 aircraft for use by B.C.P.A. and these were used on the service between Australia and America from March, 1949. At the same time, the frequency was increased to twice weekly. One trip each fortnight terminated at San Francisco, others terminating at Vancouver.

Canadian Pacific Airlines flew a survey trip over the route from Vancouver to Sydney.

During June, 1949, Qantas Empire Airways Ltd. inaugurated a fortnightly Australia–Hong Kong service based on Sydney and operating via Darwin and Labuan (British North Borneo).

During November, 1948, Qantas Empire Airways operated a survey flight from Sydney to Johannesburg and return, the route being Perth, the Cocos Islands and Mauritius. This was the first flight ever made by a land plane between Australia and South Africa via the Indian Ocean.

A survey flight with a DC3 aircraft was also made by Qantas Empire Airways between Australia and Portuguese Timor.

4. **Regular Air Services within Australia.**—During May, 1949, approval was given for an increase of approximately 15 per cent. in fares on the main trunk services. Rationing of aviation spirit was continued during the year 1948–49. With the major airlines the effect of the scheme adopted was to impose a cut of 5 per cent. on their fuel requirements as at 1st July, 1948. In January, 1950, rationing of aviation fuel ceased.

5. **Air Ambulance Services.**—A brief statement of the foundation and objects of the Air Ambulance Services will be found in Official Year Book No. 32, pp. 145 and 146.

During the years 1948–49 and 1949–50 the Air Ambulance and Flying Doctor Services continued to provide medical aid for the outback regions of Australia. As from July, 1949 the Western Australian Section arranged for the operations of the Meekatharra Flying Ambulance Scheme to be incorporated in its activities. The Commonwealth Department of Health operates the Northern Territory Aerial Medical Service with two DH84 aircraft based at Darwin, and the Bush Church Aid Society for Australia and Tasmania, supported by funds from the Church of England, maintains one DH84 aircraft based at Ceduna, and one DH83 at Wudinna, South Australia.

6. **Training of Air Pilots.**—A brief statement of the pre-war policy of the Commonwealth Government regarding assistance to Aero Clubs was given in Official Year Book No. 32, p. 146.

Payment to the Clubs, under a revised scheme for financial assistance from February, 1947 to June, 1951 has been made as follows :—(i) a maintenance grant (for each aircraft hour flown) at the following rates per hour subject to certain limitations—(*a*) at home base, £1 10s., (*b*) away from home base, £2 ; (ii) an issue bonus (for each pupil trained "ab initio" to "A" Licence standard)—(*a*) at home base, £75, (*b*) away from home base, £90 ; (iii) a renewal bonus (for each licence renewed on club aircraft)—(*a*) at home base, £10, (*b*) away from home base, £12 10s. In addition, the Commonwealth has accepted a contingent liability to contribute at the rate of 10s. per flying hour towards each club's replacement reserve. This amount is intended to supplement the club's reserve for the purchase of aircraft and spares specifically approved by the Department of Civil Aviation.

During the year 1949–50 (1948–49) 157 (123) issue bonuses and 560 (400) renewal bonuses were earned. Hours flown by subsidized Aero Clubs totalled 34,212 (27,300), and a total subsidy of £77,134 (£44,460) was earned by the nine clubs.

7. **Gliding Clubs.**—The gliding clubs in Australia took steps to form a controlling body known as the Gliding Federation of Australia. For each of the years 1948–49 and 1949–50 a total subsidy of £1,000 was distributed among the controlling gliding authorities in each State.

8. **Airways Engineering.**—During the years 1948–49 and 1949–50 the Airways Communications System throughout Australia has been improved and developed. This work has included the fixed, or point-to-point communication service, and the service between the ground and aircraft.

A start has been made with the V.H.F. communication service and installations were completed at Williamtown and Guildford.

The comprehensive installation programme on the 30 new 112-megacycle V.A.R. radio ranges mentioned in the previous issue was set in operation.

New 75-megacycle marker beacon equipment was installed at points along airways, and also localizers and instrument landing systems were planned to enable pilots to check their positions accurately. An approach control radar system, which operates on a frequency of 3,000 megacycles, has been installed at Essendon.

The Department of Civil Aviation has undertaken installation of a chain of fifteen radar stations throughout Australia for radar tracking of balloons, wind finding purposes and for detecting radio-sonde balloon flights.

The lighting of airways and airports has been closely studied during the years 1948–49 and 1949–50 by the Departmental Lighting Committee consisting of representatives of the Department of Civil Aviation and two members from the Airline Pilots' Association.

9. **Air Traffic Control.**—The introduction into regular airline service of the high speed Convair and DC6 type aircraft increased the amount and complexity of air traffic control work during the years 1948–49 and 1949–50, and increased traffic commitments caused the re-organization of control services at Mascot, Essendon and Eagle Farm. The new system of control is being extended to all aerodromes at which air traffic control is situated.

To provide visual representation of traffic operating under Area Control, a semi-automatic Altitude Assignment Board was developed. Designs for a standard control tower were also drawn up and the new Flight Progress Board equipment planned.

10. **Meteorological Aids to Civil Aviation.**—Professional meteorological officers of the Department of the Interior are on duty at 36 of Australia's 59 aeradio stations. At the remainder, communications personnel make local weather observations, and take barometer and thermometer readings for transmission to Area Meteorological Offices.

11. **Construction and Development of Airports.**—The scarcity of suitable material, labour and plant have slowed the rate of airport construction throughout Australia. Effort was concentrated mainly on the provision of buildings, housing, safety equipment, and facilities were provided where the need was greatest.

Kingsford-Smith Airport.—Work was well under way on Australia's largest and most important airport. Specially constructed suction dredges were used to pump sand from the floor of Botany Bay to fill the old course of Cook's River, a start was made on the main runway and houses were demolished to make way for it. A hydrographic survey of Botany Bay was made to determine where the water airport should be. Temporary international terminal buildings were also commenced.

Essendon Airport.—The only additional airport works completed during the years 1948–49 and 1949–50 were the re-sealing of the main runways. Plans were begun for the construction of airline unit buildings and a new power house constructed.

Moorabbin Airport.—Work continued on this secondary landing ground which accommodates all non-radio equipment aircraft and so relieves the hazard created at Essendon.

Adelaide Airport.—Construction work has been progressing slowly. Over a million cubic yards of sand have been placed. Excavation of a channel for the diversion of two creeks crossing the area is well in hand.

Hobart Airport.—To replace the Cambridge Airport, which does not meet international standards and cannot be improved, plans have been developed for the construction of a Class " D " ICAO airport for Hobart at Llanherne.

12. **Aircraft Parts and Materials.**—The number of firms and organizations approved by the Department of Civil Aviation to trade in the aircraft industry now totals 349, and extensions of approval have been granted to 186 firms to cover the extensive increase in their operations.

13. **Aircraft Maintenance Certificates of Repair.**—Aircraft maintenance repair and overhaul is carried out under the supervision of a works inspection section or licensed ground engineer in workshops approved by the Department of Civil Aviation. Workshops are authorized to issue certificates of repair which serve as evidence to the licensed ground engineer responsible for the fitment of the part that the work so covered has been done in an authorized workshop by competent tradesmen and has been subjected to proper inspection. Such specialized work as the overhaul of instruments, electrical equipment, aeronautical pumps and carburettors is carried out by these approved workshops.

14. **Test and Examination of Aircraft Parts and Materials.**—A number of laboratories is approved by the Department of Civil Aviation and authorized to issue laboratory reports covering the physical test, chemical analysis, radiological and metallurgical examination of materials and parts used in connexion with the civil aircraft industry.

15. **Statistical Summaries.**—(i) *Registrations, Licences, Accidents, etc.* The following table provides a summary of the civil aviation registrations and licences in force in Australia at 30th June of each of the years 1939 and 1946 to 1950, and also of the numbers of persons killed and injured in civil flying accidents during the years 1938–39 and 1945–46 to 1949–50.

CIVIL AVIATION: REGISTRATIONS, LICENCES, ACCIDENTS, ETC., AUSTRALIA.

Particulars.		1939.	1946.	1947.	1948.	1949.	1950.
At 30th June—							
Registered Aircraft Owners ..	No.	149	182	323	334	335	359
Registered Aircraft ..	,,	296	349	643	670	748	779
Pilots' Licences—							
Private	,,	1,096	320	(a) 600	614	756	872
Commercial	,,	346	1,019	(a) 499	495	481	469
Student	,,	..	..	(a) 939	1,114	1,169	1,778
1st Class Airline Transport	,,	..	..	(a) 341	361	397	417
2nd ,, ,, ,,	,,	..	..	(a) 25	35	27	30
3rd ,, ,, ,,	,,	..	..	(a) 372	360	363	326
Navigators' Licences ..	,,	59	223	..	..	..	..
Flight Navigator ..	,,	..	..	(a) 72	84	118	126
Cadet ,, ...	,,	..	..	(a) 10	12	44	18
Radio Operators' Licences—							
Aircraft Radio Telegraph Operator		75	401	..	..	..	..
,, ,, Telephone ,,		..	238	..	..	..	..
1st Class Flight Radio Telegraphy Operator	,,	..	..	(a) 80	106	113	103
Flight Radio Telephony Operators—							
1st Class	,,	..	..	(a) 559	590	715	701
2nd ,, ...	,,	..	..	(a) 192	211	230	211
3rd ,, ...	,,	..	..	(a) 5	6	27	38
Flight Engineers' Licences—							
Flight Engineer	,,	..	..	(a) 8	16	47	40
Cadet ,, ...	,,	..	..	..	..	4	5
Ground Engineers' Licences	,,	525	1,226	(a)1,660	1,660	(b)	1,684
Aerodromes—							
Government	,,	71	96	(a) 131	133	142	183
Public	,,	213	230	(a) 243	240	222	213
Emergency grounds ..	,,	147	73	(a) 54	49	43	(c)
Flying Boat Bases ..	,,	7	5	5	5	5	5
Accidents (year ended 30th June)—							
Persons Killed	,,	38	44	15	13	42	61
,, Injured ..	,,	15	1	17	27	21	22

(a) At 1st April, 1948; new categories in accordance with standards of the International Civil Aviation Organization. (b) Not available. (c) Included with Public Aerodromes.

(ii) *Operations of Regular Internal Services.* The next table summarizes the flying activities of regular internal services operating within Australia during the years 1938–39 and 1945–46 to 1949–50.

CIVIL AVIATION : OPERATIONS OF REGULAR INTERNAL SERVICES, AUSTRALIA.

Particulars.		Year ended 30th June—					
		1939.	1946.	1947.	1948.	1949.	1950.
Hours flown	No.	39,312	127,808	154,772	212,233	224,853	225,841
Miles ,, ...	'000	5,302	17,676	23,038	32,371	35,242	36,519
Paying Passengers ..	No.	41,429	509,190	849,647	1,207,839	1,409,300	1,499,816
Paying Passenger-miles ..	'000	22,423	224,909	366,150	503,494	566,038	590,429
Freight—							
Actual tons	No.	391	5,021	12,247	25,845	33,381	44,144
Ton-miles	'000	(a)	2,363	5,972	11,920	15,240	19,873
Mail—							
Actual tons	No.	(b) 64	2,148	1,120	1,248	1,580	2,594
Ton-miles	'000	(a)	1,549	621	674	789	1,250

(a) Not available. (b) Net weight.

NOTE.—Figures, shown for 1939 and 1946 include Oversea Services of Qantas Empire Airways Ltd. but exclude operations of aircraft chartered for defence purposes. Figures for 1939 relate to subsidized services only.

(iii) *Operations of Australian and International Oversea Services.* The following table furnishes a summary of Australian and other oversea services operating between Australia and oversea countries, including Pacific islands, during the years 1938–39 and 1945–46 to 1949–50. Particulars are not available in respect of certain services and the figures shown are therefore incomplete. For details of the individual services and routes *see Transport and Communication Bulletin* No. 41, 1949–50.

CIVIL AVIATION : OPERATIONS OF OVERSEA SERVICES. (a)

Particulars.		Year ended 30th June—					
		1939.	1946.	1947.	1948.	1949.	1950.
Route-miles	No.	6,985	10,471	19,459	26,667	29,695	39,217
Hours flown	,,	12,686	22,645	32,633	39,488	40,262	40,692
Miles flown	'000	1,736	4,265	5,921	7,555	7,982	8,768
Paying passengers ..	No.	5.350	15,702	31,055	41,124	45,296	59,832
Paying passenger-miles ..	'000	7.335	32,905	75,225	122,678	144,869	165,077
Freight —							
Actual tons	No.	6	152	349	660	765	1,121
Ton-miles	'000	(b)	406	978	2,630	2,808	4,001
Mail —							
Actual tons	No.	(b)	564	465	638	577	651
Ton-miles	'000	(b)	2,032	2,112	3,408	3,331	3,453

(a) Incomplete. (b) Not available.

16. **New Guinea Activities.**—(i) *General.* Issues up to and including No. 34, 1941 show particulars of the development of civil aviation in New Guinea and of the companies operating at the outbreak of war with Japan, while subsequent issues carry the accompanying statistical summary of operations up to the end of September, 1941. Similar statistics of post-war operations, however, are not at present available.

(ii) *Territory of New Guinea.* During 1949–50 there were 75 aerodromes throughout the Territory including a number of small airstrips opened in the Central Highlands and Sepik Districts. At 30th June, 1950 the whole of the Central Highlands District and the interior of the Sepik, Madang and Morobe Districts were supplied entirely by air transport. Air mail services operated between Sydney and Lae with an extension to Rabaul via Finschhafen. Feeder services are provided by the Territories Administration from Lae to Bulolo, Kavieng, Madang, Manus, Torokina (Bougainville) and Wau.

(iii) *Territory of Papua.* In May, 1949 a regular fortnightly service was commenced between Port Moresby and Daru using Catalina flying boats, with a service to Rabaul and Buin each alternate week. A regular weekly service has been established between Port Moresby and Samarai with extensions to Losuia (Trobriand Islands) and Deboyne Lagoon (Misima).

During 1950 Qantas Empire Airways Ltd. inaugurated a weekly service between Port Moresby and Kokoda and Popondetta (8 miles from Higaturu). Increased traffic enabled a service to be maintained twice a week.

There are 22 serviceable aerodromes maintained in the Territory. Some are suitable for large aircraft but the majority are suitable for light aircraft only, while others are only small emergency landing fields. Major aerodromes are maintained by the Commonwealth Department of Civil Aviation.

Besides the regular passenger and airmail services maintained by Qantas Empire Airways Ltd. charter services by a private operator using small aircraft are available from Port Moresby to Abau, Tapini, Bereina and other small airstrips.

I. POSTS, TELEGRAPHS, TELEPHONES AND WIRELESS.

NOTE.—In all the tables in this Division returns for the Australian Capital Territory are included with those for New South Wales, while the South Australian returns include particulars for the Northern Territory.

§ 1. General.

1. **The Commonwealth Postal Department.**—Under the provisions of the Commonwealth Post and Telegraph Act 1901, the Commonwealth Postal Department was placed under the control of the Postmaster-General, being a responsible Minister. The Director-General of Posts and Telegraphs controls the Department under the Postmaster-General, whilst the principal officer in each State is the Deputy-Director of Posts and Telegraphs.

2. **Postal Facilities.**—(i) *Relation to Area and Population.* The following statement shows the number of post offices, the area in square miles and the number of inhabitants to each post office (including non-official offices) in each State and in Australia at 30th June, 1950. In order to judge clearly the relative postal facilities provided in each State, the area of country to each office as well as the number of inhabitants per office should be taken into account.

POSTAL FACILITIES: RELATION TO AREA AND POPULATION, AT 30th JUNE, 1950.

State.	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	Aust.
Number of post offices (*a*) ..	2,538	2,455	1,285	869	637	520	8,304
Number of square miles of territory to each office in State	122	36	522	1,040	1,532	50	358
Number of inhabitants to each office	1,279	897	921	823	876	537	986
Number of inhabitants per 100 square miles	1,046	2,506	177	79	57	1,066	275

(*a*) Includes "official," "semi-official," and "non-official" offices.

The foregoing table does not include "telephone" offices at which there is no postal business.

(ii) *Number of Offices.* The following table shows the number of post offices (exclusive of telephone offices) in each State for the years 1920, 1930, 1940 and 1950.

NUMBER OF POST OFFICES AT 30th JUNE.

State.	1920.		1930.		1940.		1950.	
	Official and Semi-Official	Non-Official.	Official and Semi-Official.	Non-Official.	Official and Semi-Official.	Non-Official.	Official and Semi-Official.	Non-Official.
New South Wales ..	464	2,129	445	2,231	440	2,085	477	2,061
Victoria	269	2,267	282	2,450	282	2,301	291	2,164
Queensland ..	199	1,073	207	1,046	196	1,037	206	1,079
South Australia ..	137	655	147	658	143	644	150	719
Western Australia ..	126	485	126	497	129	486	142	495
Tasmania ..	46	442	43	475	44	464	48	472
Australia ..	1,241	7,051	1,250	7,357	1,234	7,017	1,314	6,990

(iii) *Employees and Mail Contractors.* The number of employees and mail contractors in the Central Office and in each of the States in the years 1920, 1930, 1940 and 1950 is given in the following table :—

NUMBER OF POSTAL EMPLOYEES AND MAIL CONTRACTORS AT 30th JUNE.

State.	1920.		1930.		1940.		1950.	
	Employees.	Mail Contractors.	Employees.	Mail Contractors.	Employees.	Mail Contractors.	Employees.	Mail Contractors.
Central Office ..	83	..	205	..	356	..	890	..
New South Wales ..	11,334	1,912	14,383	1,952	17,281	2,577	31,506	2,333
Victoria	7,962	1,089	10,709	1,175	13,605	1,645	22,989	1,237
Queensland ..	4,778	723	5,179	814	6,577	1,568	12,472	1,773
South Australia ..	2,679	427	3,954	414	4,013	333	7,373	488
Western Australia ..	2,110	286	2,902	398	3,469	389	5,470	402
Tasmania ..	1,156	227	1,517	270	1,716	222	2,794	302
Australia ..	30,102	4,664	38,849	5,023	47,017	6,734	83,494	6,535

3. **Gross Revenue, Branches—Postmaster-General's Department.** The gross revenue (actual collections) in respect of each branch of the Department during each of the years 1945–46 to 1949–50 in comparison with 1938–39 is shown in the table hereunder :—

POSTMASTER-GENERAL'S DEPARTMENT : GROSS REVENUE.

(£'000.)

Branch and Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Postal—							
1938–39 ..	3,048	2,042	1,067	552	502	211	7,422
1945–46 ..	4,454	3,425	1,935	930	790	344	11,878
1946–47 ..	5,004	3,759	1,780	984	861	410	12,798
1947–48 ..	5,363	4,001	1,815	1,075	925	395	13,574
1948–49 ..	5,533	4,146	1,884	1,162	954	389	14,068
1949–50 ..	6,110	4,523	2,063	1,257	1,038	433	15,424
Telegraph—							
1938–39 ..	502	341	234	118	139	38	1,372
1945–46 ..	1,173	901	738	216	234	59	3,321
1946–47 ..	1,114	865	411	231	224	60	2,905
1947–48 ..	1,061	833	422	224	228	66	2,834
1948–49 ..	1,210	825	443	218	225	70	2,991
1949–50 ..	1,493	1,012	569	303	288	91	3,756
Wireless—							
1938–39 ..	198	152	59	53	36	18	516
1945–46 ..	250	200	83	70	46	23	672
1946–47 ..	294	236	98	76	52	26	782
1947–48 ..	296	234	102	83	56	27	798
1948–49(*a*) ..	425	351	160	128	86	42	1,192
1949–50(*a*) ..	..	..	..	..	..	..	..
Telephone—							
1938–39 ..	3,261	2,352	1,098	696	431	202	8,040
1945–46 ..	5,003	3,703	1,838	1,052	661	327	12,584
1946–47 ..	5,410	3,870	1,830	1,136	708	363	13,317
1947–48 ..	5,666	4,166	1,992	1,220	752	388	14,184
1948–49 ..	6,034	4,365	2,121	1,319	801	416	15,056
1949–50 ..	7,742	5,494	2,637	1,715	1,043	537	19,168
All Branches—							
1938–39 ..	7,009	4,887	2,458	1,419	1,108	469	17,350
1945–46 ..	10,880	8,229	4,594	2,268	1,731	753	28,455
1946–47 ..	11,822	8,730	4,119	2,427	1,845	859	29,802
1947–48 ..	12,386	9,234	4,331	2,602	1,961	876	31,390
1948–49 ..	13,202	9,687	4,608	2,827	2,066	917	33,307
1949–50 ..	15,345	11,029	5,269	3,275	2,369	1,061	38,348
Total revenue per head of population—	£	£	£	£	£	£	£
1938–39 ..	2.55	2.61	2.44	2.36	2.37	1.97	2.50
1945–46 ..	3.69	4.08	4.24	3.54	3.53	3.01	3.83
1946–47 ..	3.97	4.28	3.75	3.73	3.71	3.37	3.96
1947–48 ..	4.10	4.46	3.89	3.92	3.85	3.35	4.11
1948–49 ..	4.28	4.58	4.06	4.17	3.96	3.42	4.27
1949–50 ..	4.81	5.08	4.53	4.67	4.28	3.83	4.76

(*a*) Prior to 15th March, 1949, the operations of the Australian Broadcasting Commission were financed by apportionment of the fees collected from the issue of broadcast listeners' licences, part being paid to the Commission, the remainder being retained by the Postmaster-General's Department for technical services provided and particulars thereof were included in the Department's accounts. Since that date the Commission's operations have been financed through Consolidated Revenue Fund. *See also* § 6, par. 4 (i) (*b*) following.

Compared with the corresponding figures for the previous year an increase of 15.1 per cent. is shown in the gross revenue earned for the year 1949–50. Increases in the several branches were as follows :—Postal 9.6 per cent., Telephone 27.3 per cent., and Telegraph 25.6 per cent.

The gross revenue in 1949–50 was 121.0 per cent. higher than in the last complete pre-war year, 1938–39, the corresponding percentage increases for the several branches being as follows :—Postal, 107.8, Telegraph 173.8, and Telephone 138.4.

4. **Expenditure, Postmaster-General's Department.**—(i) *Distribution*, 1949–50. The following table shows, as far as possible, the distribution of expenditure (actual payments) on various items in each State during the year ended 30th June, 1950, as shown by records kept for Treasury purposes. The table must not be regarded as a statement of the working expenses of the Department, since items relating to new works, interest, etc., are included therein.

POSTMASTER-GENERAL'S DEPARTMENT: DISTRIBUTION OF EXPENDITURE, 1949–50.

(£'000.)

Particulars.	Central Office.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Aust.
Expenditure under Control of Department—								
Salaries and payments in the nature of salary	177	7,170	5,043	2,808	1,745	1,176	656	18,775
General expenses ..	49	649	469	173	146	77	47	1,610
Stores and material ..	12	632	(b) 3,364	278	124	116	47	4,573
Mail services ..	(a) 2,225	900	494	515	258	171	72	4,635
Engineering services (other than New Works)	360	5,242	3,334	1,825	1,044	825	433	13,063
Other services ..	150	..	..	..	..	..	..	150
Total	2,973	14,593	12,704	5,599	3,317	2,365	1,255	42,806
Rent, repairs, maintenance, fittings, etc.	..	233	143	73	57	45	23	574
Other expenditure n.e.i. ..	..	11	8	3	1	12	1	36
Capital Works and Services (c)—								
Telegraph and Telephone	22	6,267	3,810	2,030	1,098	697	350	14,274
New Buildings, etc. ..	..	668	837	201	395	119	73	2,293
Other expenditure not allocated to States ..	(d) 4,321	..	..	..	..	..	..	4,321
Grand Total ..	(e) 7,316	21,772	17,502	7,906	4,868	3,238	1,702	64,304

(a) Expenditure on air-mail services, etc. (b) Includes £3,000,000 working advance for payment to credit of Post Office Stores and Transport Trust Account. (c) Includes expenditure from loan. (d) Particulars of apportionment to States not available. Includes superannuation contributions, £641,546; sinking fund payments, £2,048,014; interest on loans, £864,268; exchange, £417,201; and Advances—Overseas Telecommunications, £224,837; Public Works Staff, Salaries and General Expenses, £121,000; and Transferred Officers Pensions and Allowances, £3,691. (e) Includes expenditure not apportioned to States.

A similar table for the year 1948–49 is contained in the *Transport and Communication Bulletin* No. 40, p. 70.

(ii) *Total* 1938–39 *and* 1945–46 *to* 1949–50. Actual payments made for each of the years 1938–39 and 1945–46 to 1949–50, respectively, were:—£18,874,000, £29,010,000, £32,724,000, £40,391,000, £53,544,000, and £64,304,000.

The total expenditure increased by 20.1 per cent. during 1949–50 and was 240.7 per cent. higher in 1949–50 than in 1938–39.

5. **Profit or Loss, Postmaster-General's Department.**—(i) *States*, 1949–50. The foregoing statements of gross revenue and expenditure represent actual collections and payments made and cannot be taken to represent the actual results of the working of the Department for the year. The net results for each branch in the several States, after providing for working expenses (including superannuation, pensions and depreciation) and interest charges including exchange, were as follows:—

POSTMASTER-GENERAL'S DEPARTMENT: PROFIT OR LOSS, 1949–50.

(£'000.)

Branch.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Aust.
Postal	— 295	— 78	— 491	— 92	— 104	— 94	— 1,154
Telegraph ..	— 270	— 198	— 251	51	— 36	— 18	— 722
Telephone ..	322	727	19	— 4	— 101	— 242	721
All Branches ..	— 243	451	— 723	— 45	— 241	— 354	— 1,155

NOTE.—Minus sign (—) indicates loss.

(ii) *Branches,* 1938–39 *and* 1945–46 *to* 1949–50. The following statement shows particulars of the operating results of each branch for the years 1938–39 and 1945–46 to 1949–50 :—

POSTMASTER-GENERAL'S DEPARTMENT : PROFIT OR LOSS, BRANCHES.

(£'000.)

Year.	Postal.	Telegraph.	Wireless.	Telephone.	All Branches
1938–39..	2,105	52	76	1,392	3,625
1945–46..	2,268	996	— 144	3,058	6,178
1946–47..	2,841	148	— 419	2,534	5,104
1947–48..	1,623	— 326	— 697	1,250	1,850
1948–49..	— 297	— 1,080	(*a*)	— 346	— 1,723
1949–50..	— 1,154	— 722	(*a*)	721	— 1,155

(*a*) *See* Note (*a*) page 191.

NOTE.—Minus sign (—) indicates loss.

6. **Fixed Assets.**—(i) *Details,* 1949–50. The following statement shows particulars of the fixed assets of the Postmaster-General's Department from 1st July, 1949 to 30th June, 1950 :—

POSTMASTER-GENERAL'S DEPARTMENT : FIXED ASSETS.

(£'000.)

Particulars.	Net Value, 1st July, 1949.	Capital Expenditure, 1949–50.	Gross Value, 30th June, 1950.	Less Depreciation, etc., 1949–50. (*a*)	Net Value, 30th June, 1950.
Telephone service plant (excluding trunk lines)	76,052	14,872	90,924	1,063	89,861
Joint trunk and telegraph plant (aerial wires, conduits, and cables)	18,896	1,537	20,433	143	20,290
Telegraph service plant ..	1,188	132	1,320	16	1,304
Postal service plant	681	52	733	..	733
Sites, buildings, furniture and office equipment	15,495	2,495	17,990	238	17,752
Miscellaneous plant	3,636	1,652	5,288	295	4,993
Total	115,948	20,740	136,688	1,755	134,933

(*a*) Includes dismantled assets, depreciation written off, and assets transferred.

(ii) *Net Value,* 1938–39 *and* 1945–46 *to* 1949–50. The net value of the fixed assets of the Postmaster-General's Department at 30th June, 1939 and 1946 to 1950, respectively, was :—£65,135,000, £88,540,000, £94,986,000, £104,281,000, £115,956,000 and £134,933,000.

At 30th June, 1950 the net value of fixed assets was 107.2 per cent. greater than at 30th June, 1939.

§ 2. Posts.

1. **Postal Matter Dealt With.**—(i) *Australia.* The following table is a summary of the postal matter dealt with in Australia during the five years 1945–46 to 1949–50 in comparison with 1938–39. Although mail matter posted in Australia for delivery therein is necessarily handled at least twice, only the number dispatched is included in the following table, which consequently shows the number of distinct articles handled :—

POSTAL MATTER DEALT WITH : AUSTRALIA.

Year.	Letters, Postcards and Letter-cards.		Newspapers and Packets.		Parcels.(*a*)		Registered Articles other than Parcels.	
	Total ('000.)	Per 1,000 of Population. No.	Total ('000.)	Per 1,000 of Population. No.	Total ('000.)	Per 1,000 of Population. No.	Total ('000.)	Per 1,000 of Population. No.
POSTED WITHIN AUSTRALIA FOR DELIVERY THEREIN.								
1938–39 (*b*) ..	836,243	120,605	139,635	20,138	9,056	1,306	7,474	1,078
1945–46 ..	869,212	116,987	162,398	21,857	16,017	2,156	17,783	2,393
1946–47 ..	918,252	122,108	180,307	23,977	16,237	2,159	18,596	2,473
1947–48 ..	966,586	126,513	193,413	25,315	17,525	2,294	18,553	2,428
1948–49 ..	1,017,422	130,475	201,207	25,799	17,864	2,291	19,180	2,459
1949–50 ..	1,094,287	135,943	205,234	25,496	18,589	2,309	17,466	2,170
TOTAL POSTAL MATTER DEALT WITH.								
1938–39 (*b*) ..	903,090	130,245	165,362	23,849	9,585	1,382	8,371	1,207
1945–46 ..	942,402	126,838	185,598	24,980	19,345	2,604	18,800	2,530
1946–47 ..	984,367	130,900	210,343	27,971	20,252	2,693	19,859	2,641
1947–48 ..	1,036,835	135,708	228,957	29,967	21,880	2,864	19,913	2,606
1948–49 ..	1,094,617	140,356	238,939	30,639	21,200	2,718	20,705	2,655
1949–50 ..	1,178,837	146,446	247,134	30,700	21,340	2,651	19,165	2,381

(*a*) Includes registered, c.o.d. and duty parcels. (*b*) Packets were included with letters.

(ii) *States.* The next table shows the postal matter dealt with in each State during the year 1949–50.

POSTAL MATTER DEALT WITH : STATES 1949–50.(*a*)

State.	Letters, Postcards, and Letter-cards.		Newspapers and Packets.		Parcels.(*b*)		Registered Articles other than Parcels.	
	Total ('000).	Per 1,000 of Population.	Total ('000).	Per 1,000 of Population.	Total ('000).	Per 1,000 of Population.	Total ('000).	Per 1,000 of Population.
POSTED FOR DELIVERY WITHIN AUSTRALIA.								
New South Wales	427,665	133,981	93,678	29,348	7,716	2,417	7,722	2,419
Victoria ..	311,927	143,726	50,277	23,166	4,429	2,041	4,689	2,161
Queensland ..	141,676	121,811	28,551	24,548	3,321	2,855	2,328	2,001
South Australia ..	90,845	129,580	11,519	16,431	1,692	2,413	1,188	1,695
Western Australia	73,116	133,964	14,106	25,845	1,138	2,085	931	1,706
Tasmania ..	49,058	176,851	7,103	25,608	293	1,057	608	2,192
Australia ..	1,094,287	135,943	205,234	25,496	18,589	2,309	17,466	2,170
POSTED FOR DELIVERY OVERSEAS.								
New South Wales	11,258	3,527	5,222	1,636	866	271	543	170
Victoria ..	11,774	5,425	2,607	1,201	698	321	92	43
Queensland ..	2,428	2,087	655	563	193	166	57	49
South Australia ..	2,473	3,527	567	808	193	275	38	54
Western Australia	3,726	6,826	1,070	1,960	191	350	50	91
Tasmania ..	383	1,380	46	167	63	226	52	189
Australia ..	32,042	3,980	10,167	1,263	2,204	274	832	103
RECEIVED FROM OVERSEAS.								
New South Wales	32,681	10,239	14,852	4,653	230	72	531	166
Victoria ..	10,698	4,929	6,683	3,079	167	77	164	75
Queensland ..	3,692	3,174	2,843	2,444	58	50	30	26
South Australia ..	2,835	4,044	2,765	3,944	39	56	40	57
Western Australia	2,006	3,676	3,290	6,027	41	75	89	163
Tasmania ..	597	2,151	1,290	4,650	12	44	13	48
Australia ..	52,509	6,523	31,723	3,941	547	68	867	108

(*a*) *See* explanation in para. 1.—(i). (*b*) Includes registered, c.o.d. and duty parcels.

Comparable figures of the number of articles dealt with during 1948–49 may be found in the *Transport and Communication Bulletin* No. 40, pp. 71–74.

2. **Cash on Delivery Parcels Post.**—(i) *General.* The Postal Department undertakes, upon prepayment of a prescribed commission, to deliver registered articles sent by parcel post within Australia, or between Lord Howe Island, Norfolk Island, Nauru, the Territory of Papua-New Guinea, or Fiji and Australia, to recover from the addressee on delivery a sum of money specified by the sender, and to remit the sum to the sender. The object

of the system is to meet the requirements of persons who wish to pay at the time of receipt for articles sent to them, also to meet the requirements of traders and others who do not wish their goods to be delivered except on payment.

(ii) *Summary of Business.* The next statement shows particulars regarding the cash on delivery parcels posted in each State for the years 1945–46 to 1949–50 in comparison with 1938–39 :—

CASH ON DELIVERY PARCELS POST : SUMMARY OF BUSINESS.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
			NUMBER OF PARCELS POSTED.				
1938–39	332,419	36,000	175,376	20,596	67,852	849	633,092
1945–46	401,900	53,500	192,200	41,800	48,000	1,500	738,900
1946–47	483,300	54,300	245,900	49,400	59,000	1,900	893,800
1947–48	491,800	62,200	285,500	60,100	68,200	2,600	970,400
1948–49	516,400	72,500	319,700	77,500	89,800	2,700	1,078,600
1949–50	540,100	88,100	296,100	85,200	93,600	2,700	1,105,800
			VALUE COLLECTED. (£)				
1938–39	405,844	50,224	226,409	22,962	76,323	1,143	782,905
1945–46	691,019	113,484	317,918	69,284	64,108	2,498	1,258,311
1946–47	950,395	140,533	404,268	95,928	92,502	3,194	1,686,820
1947–48	939,815	148,052	522,655	113,499	114,597	4,506	1,843,124
1948–49	1,229,553	194,505	625,234	163,178	143,617	5,051	2,361,138
1949–50	1,428,055	247,319	659,029	206,778	150,364	5,760	2,697,305
			REVENUE INCLUDING POSTAGE, COMMISSION ON VALUE, REGISTRATION AND MONEY ORDER COMMISSION. (£)				
1938–39	45,097	4,867	24,881	2,587	8,207	102	85,741
1945–46	54,220	8,635	25,598	6,019	5,526	177	100,175
1946–47	68,886	10,395	32,705	7,422	6,765	220	126,393
1947–48	67,287	9,611	40,964	10,780	9,272	316	138,230
1948–49	76,737	12,082	44,086	11,941	11,832	344	157,022
1949–50	88,941	15,880	51,309	16,067	15,896	388	188,481

3. **Total Cost of Carriage of Mails.**—During 1948–49 and 1949–50 the total amounts paid for the carriage of mails, as disclosed by the Profit and Loss Account of the Postal Branch, were as follows (1948–49 in parentheses): Inland mails—Road £1,291,684 (£1,145,092), Railway £753,363 (£621,718), Air £756,369 (£615,250); Coastwise mails—£20,029 (£16,473); Oversea mails—Sea £677,561 (£658,550), Air £1,025,714 (£740,103); Grand Total—£4,524,720 (£3,797,186).

4. **Transactions of the Dead Letter Offices.**—During the year 1949–50 there were, in the several States of Australia, 1,576,280 letters, post cards and lettercards returned to writers or delivered, 191,414 destroyed in accordance with the Act, and 109,867 returned to other States or countries as unclaimed—a total of 1,877,561. Corresponding particulars for packets and circulars were—414,997, 198,795, 22,594 and 636,386. There were 2,513,947 articles handled in all, and money and valuables amounting to £403,748 were included.

5. **Money Orders and Postal Notes.**—(i) *General.* The issue of money orders and postal notes is regulated by Sections 74–79 of the Post and Telegraph Act 1901. The maximum amount for which a single money order payable within Australia may be

obtained is £40, but additional orders will be issued upon request when larger amounts are to be remitted. The maximum amount permitted to be sent to any person in the sterling area is £8 per month but varying conditions apply for remittance to countries outside the sterling area. A postal note, which is payable only within Australia and in Papua, cannot be issued for a larger sum than twenty shillings.

(ii) *States*, 1949–50. Particulars regarding the business transactions in each State for 1949–50 are shown hereunder :—

MONEY ORDERS AND POSTAL NOTES : TRANSACTIONS, 1949–50.

State.	Value of Money Orders Issued.	Value of Money Orders Paid.	Net Money Order Commission Received.	Value of Postal Notes Issued.	Poundage Received on Postal Notes.
	£'000.	£'000.	£	£'000.	£
New South Wales ..	17,678	18,184	80,700	5,036	100,911
Victoria	8,464	8,995	37,815	4,217	98,802
Queensland.. ..	5,181	4,922	27,328	1,154	23,422
South Australia ..	2,362	2,220	11,224	937	21,353
Western Australia ..	2,115	2,073	11,921	605	12,323
Tasmania	1,214	1,109	6,040	257	5,882
Australia ..	37,014	37,503	175,028	12,206	262,693

(iii) *Australia*, 1938–39 *and* 1945–46 *to* 1949–50. The next table shows the number and value of money orders and postal notes issued and paid in Australia in each of the years 1945–46 to 1949–50 compared with 1938–39 :—

MONEY ORDERS AND POSTAL NOTES : TRANSACTIONS, AUSTRALIA.

Year.	Money Orders.				Postal Notes.			
	Issued.		Paid.		Issued.		Paid.	
	Number.	Value.	Number.	Value.	Number.	Value.	Number.	Value.
	'000.	£'000.	'000.	£'000.	'000.	£'000.	'000.	£'000.
1938–39 ..	3,239	18,349	3,254	18,548	21,942	7,926	21,966	7,934
1945–46 ..	3,508	27,051	3,530	27,274	22,614	9,178	22,622	9,228
1946–47 ..	3,653	27,918	3,662	28,348	24,864	9,536	24,710	9,512
1947–48 ..	3,898	29,799	3,952	30,532	26,517	10,527	26,353	10,469
1948–49 ..	4,194	33,012	4,215	33,262	28,059	11,266	27,810	11,246
1949–50 ..	4,586	37,014	4,626	37,503	30,181	12,206	29,998	12,130

(iv) *Classification of Money Orders Issued and Paid.* Of the total money orders issued in Australia during 1949–50, 4,472,968 valued at £36,582,128 were payable in Australia, 10,699 (£27,671) in New Zealand, 72,974 (£255,267) in the United Kingdom and 30,069 (£148,493) in other countries. Of the total money orders paid in Australia during 1949–50, 4,479,473 (£36,772,695) were issued in Australia, 25,387 (£72,841) in New Zealand, 85,411 (£410,798) in the United Kingdom and 35,426 (£246,771) in other countries.

Money orders payable or issued in foreign countries, which have been sent from or to Australia through the General Post Office in London, are included in those payable or issued in the United Kingdom.

(v) *Postal Notes Paid.* The following table shows the number and value of postal notes paid in each State during 1949–50. Particulars regarding the number and value of postal notes issued and paid in each of the last five years have been given in the previous table.

POSTAL NOTES PAID : STATE OF ISSUE, 1949–50.

Issued in—	Postal Notes Paid in—						
	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Same State No. '000	9,960	5,402	2,105	1,159	1,032	483	20,141
Value £'000	4,439	2,337	899	505	455	182	8,817
Other States No.'000	1,165	883	736	158	431	6,484	9,857
Value £'000	485	393	316	77	89	1,953	3,313
Total No. '000	11,125	6,285	2,841	1,317	1,463	6,967	29,998
Value £'000	4,924	2,730	1,215	582	544	2,135	12,130

§ 3. Telegraphs.

1. **General.**—A review of the development of telegraph services in Australia up to 1921 appears in Official Year Book No. 15, p. 625, and subsequent developments of importance have been dealt with in later issues. During the past few years substantial improvements in both the speed and grade of telegraph service throughout Australia have been effected, the entire system being subjected to intensive reorganization. The external circulation system of the Australian telegraph service has been considerably modified, and direct communication has been established between cities and towns which formerly were served through intermediate repeating centres.

Telephone subscribers may telephone telegrams for onward transmission, or have messages telephoned to them. The fee for the service is small, and the system means, in effect, that the telegraph system is brought into the home of every telephone subscriber. The number of telegrams lodged by telephone during the year ended 30th June, 1950 was 8,867,476 or 25 per cent. of the total lodgments.

A radiogram service is provided to certain isolated places throughout Australia and a number of privately operated wireless transceiver stations have been established at various centres throughout the Commonwealth, enabling telegrams to be exchanged with departmental telegraph offices. Stations sponsored by the Flying Doctor Service of Australia can communicate by wireless with base stations.

The picturegram service between Melbourne and Sydney, which was established in 1929, but which was suspended during 1942, was restored and extended to Brisbane and Adelaide in 1949 and to Perth in 1950. The equipment installed at these points also permits the direct transmission and reception of overseas phototelegrams. Portable picture-transmitting apparatus has been provided for use at country centres in New South Wales and Victoria and was first used for the opening of the 19th Federal Parliament at Canberra on 21st February, 1950.

Teleprinter services (i.e. typewriting over electrical circuits), affording the great advantage of direct and instantaneous communication between points within the same building or separated by distances up to thousands of miles, and printergram services, connecting any business premises with the local telegraph office for the transmission and reception of telegrams, are available.

2. **Telegraph and Telephone Mileages.**—The following table shows, for the year ended June, 1950, the combined single wire mileage for both telegraph and telephone purposes in each State. The lengths of conduits and pole routes are also shown.

TELEGRAPHS AND TELEPHONES : MILEAGES, 1949–50.

Particulars.	N.S.W.	Vic.	Qld.	S.A.	W.A.	Tas.	Aust.
Cables—							
Exchange aerial, underground and submarine .. single wire miles '000	1,394	1,100	420	285	215	70	3,484
Trunk telephone and telegraph aerial, underground and submarine .. single wire miles '000	44	57	5	10	9	2	127
Total .. ,, ,,	1,438	1,157	425	295	224	72	3,611
Conduits .. duct miles '000	8	5	2	1	2	1	19
Aerial wires—							
Telephone, trunk and/or telegraph purposes .. single wire miles '000	135	89	111	63	47	17	462
Exchange and non-exchange service lines .. single wire miles '000	193	150	84	79	37	23	566
Total .. ,, ,,	328	239	195	142	84	40	1,028
Pole routes .. total miles '000	33	21	18	15	14	4	105

3. **Telegraph Offices and Telegrams Dispatched within Australia.**—(i) *States.* The following table shows, for each State in 1949–50, the number of telegraph offices (including railway telegraph offices) and of telegrams dispatched to places within the Commonwealth and to adjacent islands and to ships at sea, according to the class of message transmitted:—

TELEGRAPH OFFICES, AND TELEGRAMS DISPATCHED, 1949–50.

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
Telegraph Offices(*a*) No.	3,125	2,443	1,832	923	978	562	9,863
Messages ('000)—							
Paid and Collect—							
Ordinary ..	10,915	7,099	4,863	2,354	2,736	738	28,705
Urgent ..	1,023	391	316	111	106	42	1,989
Press ..	110	46	45	32	44	10	287
Lettergram ..	22	20	16	14	18	7	97
Radiogram ..	48	5	51	35	48	1	188
Total ..	12,118	7,561	5,291	2,546	2,952	798	31,266
Unpaid—							
Service ..	304	150	173	53	72	33	785
Meteorological	705	319	516	1,319	455	121	3,435
Total ..	1,009	469	689	1,372	527	154	4,220
Grand Total	13,127	8,030	5,980	3,918	3,479	952	35,486

(*a*) At 30th June.

A comparable table for the year 1948–49 may be found in the *Transport and Communication Bulletin* No. 40, p. 78.

(ii) *Australia.* The numbers of telegraph offices, and of telegrams dispatched to destinations within Australia and to adjacent islands and to ships at sea, for each of the years 1938–39 and 1945–46 to 1949–50 respectively, were :—Telegraph offices—9,389, 9,426, 9,458, 9,599, 9,701 and 9,863 ; Telegrams dispatched—17,252,000, 35,971,000 33,729,000, 34,692,000, 35,647,000 and 35,486,000.

The volume of telegraph business has increased by over 105 per cent. since the year 1938–39.

§ 4. Oversea Cable and Radio Communication.

1. **First Cable Communication with the Old World.**—In earlier issues of the Official Year Book will be found a detailed account of the connexion of Australia with the Old World by means of submarine cables. (*See* No. 6, p. 770.)

2. **General Cable Service.**—Descriptions of the various cable services between Australia and other countries are given in Official Year Book No. 22, pp. 335–6.

3. **Merging of Cable and Wireless Interests.**—Following upon the recommendations of the Imperial Wireless and Cable Conference in London in 1928 which examined the situation that had arisen as the result of the competition of the beam wireless with the cable services, the Imperial and International Communications Limited (since renamed Cable and Wireless Ltd.) was formed and took over the operations of the Pacific Cable Board and the control of the Eastern Extension Cable Company and the Marconi Wireless Company. For further developments, leading eventually to the establishment of the Overseas Telecommunications Commission, *see* Official Year Book No. 37, pp. 220–4.

4. **Oversea Cable and Radio Traffic.**—(i) *States.* The number of telegrams received from and dispatched overseas in each State during 1949–50 is shown hereunder :—

INTERNATIONAL TELEGRAMS, 1949–50.

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
Number received ..	577,691	449,812	53,750	63,241	71,339	17,269	1,233,102
,, dispatched	598,207	424,978	62,099	69,521	68,915	18,656	1,242,376
Total ..	1,175,898	874,790	115,849	132,762	140,254	35,925	2,475,478

(ii) *Australia.* (*a*) *Number of Telegrams.* The following table shows the number of international telegrams received from and dispatched overseas during the years 1938–39 and 1945–46 to 1949–50 :—

INTERNATIONAL TELEGRAMS : AUSTRALIA.

Particulars.	1938–39.	1945–46.	1946–47.	1947–48.	1948–49.	1949–50.
Number received ..	716,007	1,023,889	944,115	1,047,076	1,123,019	1,233,102
.. dispatched ..	745,754	1,045,602	987,260	1,023,396	1,123,020	1,242,376
Total ..	1,461,761	2,069,491	1,931,375	2,070,472	2,246,039	2,475,478

(*b*) *Number of Words*, 1949–50. The following statement shows particulars of the international business, originating and terminating in Australia, transacted over the cable and wireless services during the year ended 30th June, 1950 :—

INTERNATIONAL TELEGRAMS : AUSTRALIA, 1949–50.

('000 Words.)

Class of Traffic.	Number of Words Transmitted to—			Number of Words Received from—		
	United Kingdom.	Other Places.	Total.	United Kingdom.	Other Places.	Total.
Ordinary (*a*) ..	2,510	3,269	5,779	2,082	2,861	4,943
Deferred ordinary ..	5,310	4,442	9,752	4,692	3,304	7,996
Government (*a*) ..	847	1,221	2,068	1,581	1,675	3,256
Press (including deferred press) ..	2,220	2,965	5,185	8,758	6,259	15,017
Daily letter ..	4,273	6,126	10,399	4,266	6,157	10,423
Other	1,442	848	2,290	1,417	857	2,274
Total	16,602	18,871	35,473	22,796	21,113	43,909

(*a*) Includes code telegrams.

Words transmitted to " Other places " included 2,842,420 to the United States of America and 6,115,580 to New Zealand and the Pacific Islands. Words received from " Other places " included 2,468,118 from the United States of America and 5,094,818 from New Zealand and the Pacific Islands.

§ 5. Telephones.

1. **General.**—Particulars of the total mileage of lines used exclusively for telephone purposes are not available, but are combined with all other line mileage. A table showing the total single wire mileage used for telephone trunk and/or telegraph purposes is shown in § 3 on page 199.

During 1949–50 the total number of telephones added to the post office system was 81,850, compared with 64,980 in 1948–49. With an average at 1st January, 1950 of 132 telephones per 1,000 of population, Australia continues to hold a high place amongst the countries of the world in respect of telephone density, and ranked seventh in a number of countries (more than 60) listed as at that date by the American Telephone and Telegraph Company (*see* para. 7 following).

Seventy-two carrier wave telephone systems were installed during 1949–50 (94 during 1948–49) on trunk line routes serving capital cities and important provincial centres. The number of carrier systems now in service totals 499, representing a channel mileage of 289,897.

Twenty-three automatic exchanges were established during the year (20 during 1948–49) and at 30th June, 1950 there were 174 automatic exchanges in the metropolitan area and 242 in the country districts, to which 685,315 telephones were connected, representing 62 per cent. of the total number in use in Australia.

2. **Summary for States.**—Particulars relating to the telephone service in each State for the years ended 30th June, 1949 and 1950 compared with 1939 will be found in the following table :—

TELEPHONE SERVICES : SUMMARY.

(Number.)

Particulars.	Year (30th June).	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Aust.
Exchanges ..	1939	2,010	1,680	1,053	579	653	358	6,333
	1949	2,085	1,688	1,143	621	679	368	6,584
	1950	2,138	1,714	1,182	629	687	370	6,720
Telephone Offices (including Exchanges)	1939	3,040	2,358	1,517	829	907	509	9,160
	1949	3,090	2,421	1,616	908	915	512	9,462
	1950	3,185	2,435	1,643	950	928	518	9,659
Lines connected ..	1939	189,915	150,570	61,650	45,224	26,032	14,144	487,535
	1949	284,135	228,586	97,547	64,008	38,593	21,558	734,427
	1950	305,485	244,858	106,246	69,907	43,130	23,451	793,077
Instruments connected	1939	257,246	208,230	82,226	60,451	35,830	18,013	661,996
	1949	397,919	324,919	133,134	88,554	55,067	28,541	1,028,134
	1950	428,546	348,505	144,427	96,560	60,709	31,237	1,109,984
(i) Subscribers' instruments	1939	250,511	203,668	79,293	58,512	34,380	17,098	643,462
	1949	388,391	317,501	128,794	85,909	53,144	27,386	1,001,125
	1950	418,423	340,524	139,793	93,653	58,596	30,004	1,080,993
(ii) Public telephones	1939	4,223	2,573	1,775	1,017	926	562	11,076
	1949	5,384	3,357	2,169	1,271	805	604	13,590
	1950	5,576	3,607	2,275	1,366	883	631	14,338
(iii) Other local instruments	1939	2,512	1,989	1,158	922	524	353	7,458
	1949	4,144	4,061	2,171	1,374	1,118	551	13,419
	1950	4,547	4,374	2,359	1,541	1,230	602	14,653
Instruments per 100 of population	1939	9.32	11.09	8.08	10.03	7.62	7.59	9.50
	1949	12.70	15.19	11.57	12.89	10.34	10.60	12.99
	1950	13.20	15.82	12.20	13.49	10.88	11.18	13.56

Of the total telephones (1,109,984) in service on 30th June, 1950, 409,563 or 36.9 per cent. were connected to exchanges situated beyond the limits of the metropolitan telephone networks.

3. **Subscribers' Lines and Calling-rates.**—The next table shows the number of subscribers' lines and the daily calling-rates at central, suburban and country telephone exchanges in the several States for 1949–50 :—

TELEPHONES : SUBSCRIBERS' LINES AND DAILY CALLING-RATE, 1949–50.

State.	Central Exchanges.		Suburban Exchanges.		Country Exchanges.	
	Subscribers' Lines Connected.	Average Outward Calls Daily per line.	Subscribers' Lines Connected.	Average Outward Calls Daily per line.	Subscribers' Lines Connected.	Average Outward Calls Daily per line.
New South Wales ..	27,207	11.08	155,855	4.11	102,762	2.27
Victoria	18,477	11.36	134,227	3.64	80,780	1.68
Queensland.. ..	9,042	10.93	38,705	3.90	49,794	2.31
South Australia ..	5,802	10.18	34,999	2.56	26,801	1.33
Western Australia ..	8,051	8.40	16,952	3.65	14,191	1.70
Tasmania	4,840	5.09	3,415	2.74	13,489	2.07

Similar information for the year 1948–49 may be found in the *Transport and Communication Bulletin* No. 40, p. 82.

A comparison of the average daily calling-rates for each class of exchange shows that Victoria registered the greatest number of calls per line at central exchanges, New South Wales at suburban exchanges and Queensland at country exchanges.

4. **Effective Paid Local Calls.**—The numbers of effective paid local calls from subscribers and public telephones in the various States during the years ended 30th June, 1949 and 1950 appear hereunder :—

TELEPHONES : NUMBER OF EFFECTIVE PAID LOCAL CALLS.
('000.)

State.	Subscribers' Calls.		Calls from Public Telephones.		Total Calls.	
	1948–49.	1949–50.	1948–49.	1949–50.	1948–49.	1949–50.
New South Wales ..	339,259	341,967	44,092	42,464	383,351	384,431
Victoria	242,780	241,313	22,941	23,223	265,721	264,536
Queensland	96,356	97,360	10,190	8,884	106,546	106,244
South Australia ..	60,101	57,994	7,843	7,448	67,944	65,442
Western Australia ..	43,163	44,721	3,834	3,601	46,997	48,322
Tasmania	18,709	18,021	1,883	1,534	20,592	19,555
Australia ..	800,368	801,376	90,783	87,154	891,151	888,530

In 1938–39 subscribers' calls numbered 551,511,000, calls from public telephones 44,683,000, and total local calls 596,194,000.

5. **Trunk Line Calls and Revenue.**—In the next table the number of telephone trunk line calls recorded, the amount of revenue received, and the average revenue per call are shown for each of the States for the years 1948–49 and 1949–50 compared with 1938–39.

TELEPHONES : TRUNK LINE CALLS AND REVENUE.

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
Total Calls—	'000.	'000.	'000.	'000.	'000.	'000.	'000.
1938–39 ..	14,401	11,198	7,306	4,166	2,311	1,770	41,152
1948–49 ..	22,286	18,294	10,998	6,622	3,593	3,183	64,976
1949–50 ..	23,620	19,450	11,415	6,726	3,704	3,287	68,202
Total Revenue—	£	£	£	£	£	£	£
1938–39 ..	739,472	529,190	412,811	196,780	126,141	73,634	2,078,028
1948–49 ..	1,635,525	1,132,215	862,976	498,578	262,551	171,346	4,563,191
1949–50 ..	2,328,509	1,668,877	1,209,202	710,753	375,893	252,011	6,545,245
Average Revenue per call—	d.	d.	d.	d.	d.	d.	d.
1938–39 ..	12.32	11.34	13.56	11.34	13.09	9.98	12.12
1948–49 ..	17.61	14.85	18.83	18.07	17.54	12.92	16.86
1949–50 ..	23.66	20.59	25.42	25.36	24.36	18.40	23.03

The number of trunk line calls during 1949–50 increased by more than 3 million, or 5 per cent., compared with the figures for the previous year, whilst the average revenue per call increased by 36.6 per cent.

6. **Revenue from Telephones.**—Particulars regarding the revenue from telephone services are included in tables in § 1.

7. **World Telephone Statistics, 1950.**—Information derived, in the main, from statistics compiled by the American Telephone and Telegraph Company shows that at 1st January, 1950 there were more than 70,000,000 telephones in use throughout the world. The United States of America, with almost 41,000,000, possessed by far the greatest proportion of these (58 per cent.). In density also the United States came first, with 27 instruments per 100 of population. Australia with 13.2 came seventh, following Sweden (23), Canada (20), Switzerland (18), New Zealand (18), and Denmark (16). By June, 1950 the density of telephones in Australia had risen to 13.6 per 100 persons and by June, 1951 to 14.3.

§ 6. Radio Telegraphy and Telephony.

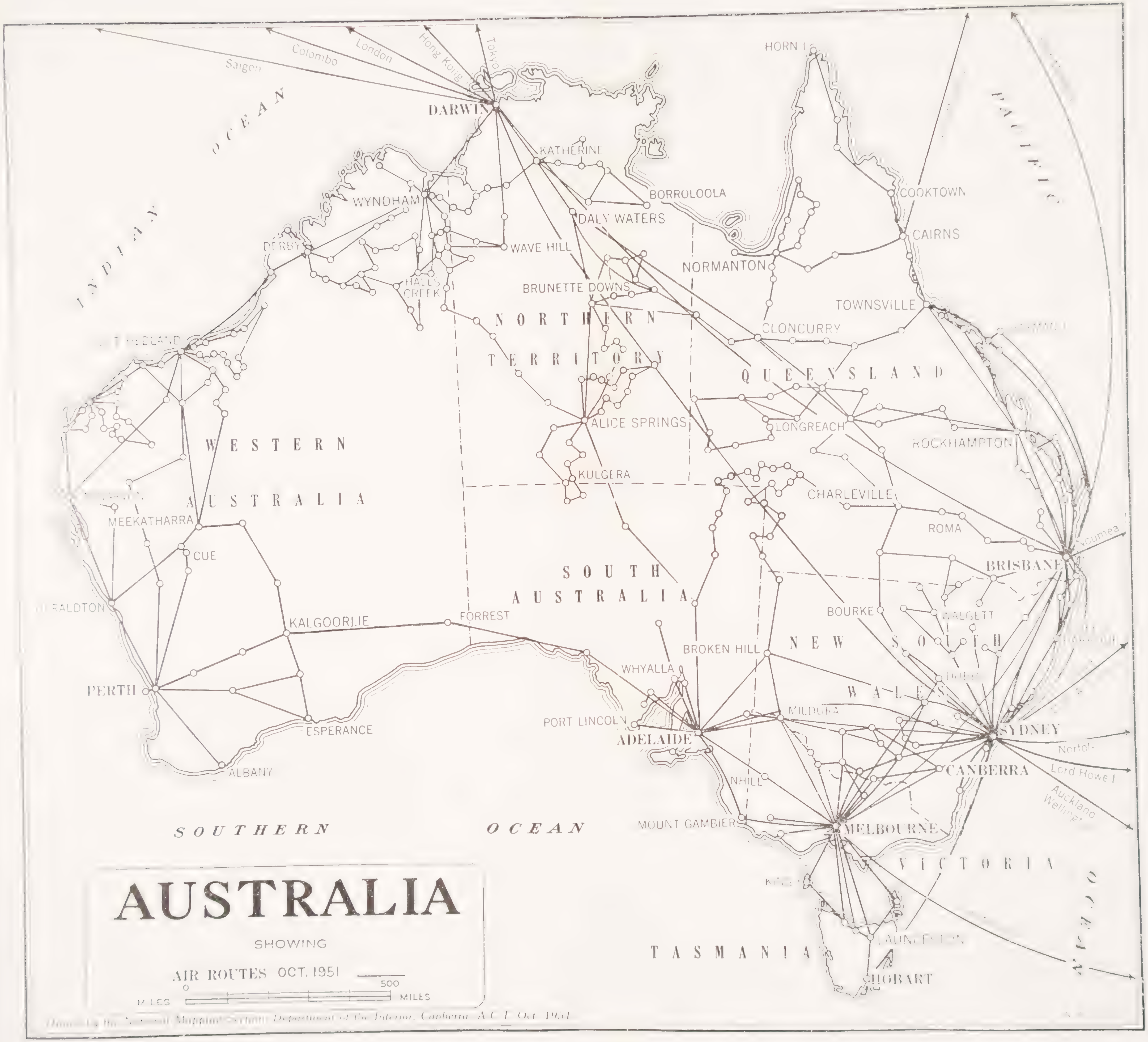
1. **General.**—A statement in regard to the initial steps taken to establish radio telegraphy in Australia appears in Official Year Book No. 18, p. 343.

2. **Radio-communication Stations Authorized.**—(i) *States and Territories, 30th June, 1950.* The following table shows particulars of the different classes of radio-communication stations authorized at 30th June, 1950 in each State and Territory of the Commonwealth. Figures relate to radio-communication (radio telegraph and radio telephone) stations only; particulars of broadcasting stations and of broadcast listeners are shown in par. 3 following.

RADIO-COMMUNICATION STATIONS AUTHORIZED, 30th JUNE, 1950.

State or Territory for which Authorized.	Transmitting and Receiving.						Receiving Only.			Grand Total.
	Aeronautical.(*a*)	Coast. (*b*)	Land. (*c*)	Mobile (General).(*d*)	Miscellaneous.	Total.	Land. (*c*)	Mobile (General).(*d*)	Total.	
New South Wales	11	1	319	790	27	1,148	74	37	111	1,259
Victoria ..	9	4	198	662	13	886	202	149	351	1,237
Queensland ..	11	6	261	213	1	492	64	117	181	673
South Australia	8	2	130	140	3	283	1	..	1	284
Western Australia	13	6	265	80	3	367	31	6	37	404
Tasmania ..	5	3	45	45	2	100	1	..	1	101
Northern Territory	5	1	128	7	..	141	2	..	2	143
Aust. Cap. Terr.	1	..	5	26	..	32	..	2	2	34
Total, Australia	63	23	1,351	1,963	49	3,449	375	311	686	4,135
Papua-New Guinea	5	6	166	48	..	225	..	..	..	225
Grand Total ..	68	29	1,517	2,011	49	3,674	375	311	686	(*e*)4,360

(*a*) Ground stations (aeradio stations) for communication with aircraft stations. (*b*) Ground stations for communication with ship stations. (*c*) Stations established at fixed locations on land for the conduct of point-to-point services and for communication with mobile stations. (*d*) Stations installed in motor vehicles and small harbour vessels not falling within the definition of ship stations or aircraft stations and stations comprising small portable apparatus used for various purposes. (*e*) Excludes 226 aircraft stations, 617 ship stations and 139 "other" stations which cannot be classified according to States, etc.



AUSTRALIA

SHOWING

AIR ROUTES OCT. 1951

Saigon
Colombo
London
Hong Kong
Tokyo
INDIAN OCEAN
PACIFIC
HORN I.
DARWIN
KATHERINE
BORROLOOLA
DALY WATERS
COOKTOWN
CAIRNS
WYNDHAM
DERBY
WAVE HILL
NORMANTON
HALLS CREEK
BRUNETTE DOWNS
TOWNSVILLE
NORTHERN TERRITORY
CLONCURRY
PORT HEDLAND
QUEENSLAND
ALICE SPRINGS
LONGREACH
ROCKHAMPTON
WESTERN AUSTRALIA
KULGERA
CHARLEVILLE
MEEKATHARRA
ROMA
CUE
Noumea
BRISBANE
SOUTH AUSTRALIA
GERALDTON
BOURKE
WALGETT
KALGOORLIE
FORREST
NEW SOUTH WALES
BROKEN HILL
WHYALLA
PERTH
MILDURA
PORT LINCOLN
SYDNEY
ADELAIDE
ESPERANCE
Norfolk
CANBERRA
Lord Howe I.
ALBANY
NHILL
Auckland
Wellington
SOUTHERN
OCEAN
MOUNT GAMBIER
MELBOURNE
VICTORIA
OCEAN
LAUNCESTON
TASMANIA
HOBART
0
500
MILES
MILES
Drawn by the National Mapping Section, Department of the Interior, Canberra, A.C.T. Oct. 1951

(ii) *Grand Totals, 30th June,* 1947 *to* 1950. The following table shows the total number of radio-communication stations authorized in Australia and Papua-New Guinea at 30th June of the years 1947 (the earliest date for which the present classification is available) to 1950.

RADIO-COMMUNICATION STATIONS AUTHORIZED: AUSTRALIA AND PAPUA-NEW GUINEA.

At 30th June—	Transmitting and Receiving.					Receiving only.		Ship.	Air-craft.	Other.	Grand Total.
	Aero-nautical.	Coast.	Land.	Mobile (General).	Miscellaneous.	Land.	Mobile (General).				
1947 ..	59	20	788	827	26	326	233	219	87	..	2,585
1948 ..	59	24	1,009	1,208	68	331	259	345	168	..	3,471
1949 ..	69	28	1,325	1,717	47	330	323	520	205	..	4,564
1950 ..	68	29	1,517	2,011	49	375	311	617	226	139	5,342

See notes to previous table.

3. **Broadcast Licences Issued.**—(i) *States and Territories, 30th June,* 1950. The following table shows the number of broadcast licences issued in each State and Territory of the Commonwealth at 30th June, 1950.

BROADCAST LICENCES ISSUED, 30th JUNE, 1950.

State or Territory in which Issued.	Broadcasting.		Broadcast Listeners'.		Experi-mental.
	National Stations.	Commercial Stations.	One Receiver.	More than one Receiver.	
New South Wales	(*a*) 12	35	678,399	64,632	978
Victoria..	(*a*) 7	19	505,078	52,478	910
Queensland(*b*)	(*a*) 13	20	260,033	14,246	333
South Australia	3	8	194,113	32,610	301
Western Australia ..	(*a*) 7	11	133,199	16,129	185
Tasmania	3	8	64,369	7,917	97
Northern Territory ..	2	..	1,148	40	9
Australian Capital Territory	1	1	4,872	365	13
Total	48	102	1,841,211	188,417	2,826

(*a*) Includes Short Wave Stations: New South Wales 1; Victoria 3; Queensland 2 and Papua 1; Western Australia 2. (*b*) Includes Papua.

Of broadcast listeners' licences in respect of one receiver, 1,031,750 or 56.04 per cent. were held by persons situated in metropolitan areas and 809,461 or 43.96 per cent. by persons in country areas.

(ii) *Broadcast Listeners' Licences, 30th June, 1925 to 1950.* The following table shows the number of broadcast listeners' licences issued at 30th June, 1925, 1930, 1935, 1939, 1940 and 1945 to 1950 :—

BROADCAST LISTENERS' LICENCES ISSUED.

At 30th June—	N.S.W. (a)	Victoria.	Q'land. (b)	S. Aust. (c)	W. Aust.	Tasmania.	Australia. (b)
1925 ..	33,719	19,243	1,061	3,118	3,417	501	61,059
1930 ..	114,080	136,887	23,263	25,671	5,715	6,032	311,648
1935 ..	278,098	234,556	67,309	79,305	41,176	20,088	720,532
1939 ..	433,029	327,579	133,217	117,307	70,262	39,392	1,120,786
1940 ..	458,155	348,158	151,110	124,891	87,764	42,182	1,212,260
1945(d) ..	570,312	412,317	184,341	160,210	102,065	50,557	1,479,802
1946 ..	575,864	415,785	191,186	164,724	106,529	51,992	1,506,080
1947 ..	679,505	499,944	228,066	180,909	121,149	61,674	1,771,247
1948 ..	699,259	505,106	239,342	197,326	128,703	63,080	1,832,816
1949 ..	706,452	531,722	261,054	212,416	139,290	68,088	1,919,022
1950 ..	748,268	557,556	274,279	227,911	149,328	72,286	2,029,628

(a) Includes Australian Capital Territory. (b) Includes Papua. (c) Includes Northern Territory. (d) Commencing in July, 1942, licences for receivers in excess of one are included.

4. Broadcasting.—(i) *The National Broadcasting Service.* (a) *Transmitting Stations.* The technical services for the National Broadcasting System are provided by the Postmaster-General's Department, and the programmes by the Australian Broadcasting Commission (*see* Chapter XXIX.—Miscellaneous).

At the 30th June, 1950, the National Broadcasting System of Australia comprised 48 transmitting stations as follows :—

Medium-wave Stations—

2FC and 2BL Sydney, 2NC Newcastle, 2NA Newcastle, 2CO Corowa, 2NR Lawrence, 2CR Cumnock, 2CY Canberra, 2LG Lithgow, 2NB Broken Hill, 2NU Manilla, 2TR Taree, 3LO and 3AR Melbourne, 3GI Longford, 3WV Dooen, 4QG and 4QR Brisbane, 4AT Atherton, 4QB Pialba, 4QL Longreach, 4QN Clevedon, 4RK Rockhampton, 4QS Dalby, 4QY Cairns, 5CL and 5AN Adelaide, 5CK Crystal Brook, 5DR Darwin, 5AL Alice Springs, 6WF and 6WN Perth, 6WA Minding, 6GF Kalgoorlie, 6GN Geraldton, 7ZL and 7ZR Hobart, 7NT Kelso, 9PA Port Moresby, Papua.

Short-wave Stations—

VLI Sydney, New South Wales, VLG, VLH and VLR Lyndhurst, Victoria, VLQ and VLM Brisbane, Queensland, VLW and VLX Perth, Western Australia, VLT Port Moresby, Papua.

With the exception of the short-wave stations, all transmitters operate in the medium frequency broadcast band 540 to 1,600 kilocycles per second. From the short-wave stations, using frequencies within the band 3 to 30 megacycles per second, service is given to listeners in sparsely populated parts of Australia such as the north-west of Western Australia, Northern Territory, and Northern and Central Queensland.

In addition to the short-wave stations under the National Broadcasting System there are also three short-wave stations at Shepparton, Victoria (VLA, VLB, VLC) for overseas services only.

Programmes for country regional stations are normally relayed from the central studio of the nearest capital city, high quality programme transmission lines being used for the purpose. A number of programme channels is utilized to link national broadcasting stations in the capital cities of Australia, and frequently this system is extended to connect both the national and commercial broadcasting stations.

(*b*) *Broadcast Listeners' Licences.**—(1) The general position regarding the fees payable for broadcast listeners' licences is as follows :—(*a*) For a single receiver possessed by a person, Zone 1, £1 ; Zone 2, 14s. ; (*b*) for receivers in excess of one possessed by a person, Zone 1, 10s., Zone 2, 7s.

(2) Free licences are granted to blind persons and to schools. Invalid and age pensioners who live alone or with another such pensioner are required to pay only half the ordinary fees, i.e. :—(*a*) For a single receiver, Zone 1, 10s ; Zone 2, 7s. ; (*b*) for receivers in excess of one, Zone 1, 5s. ; Zone 2, 3s. 6d.

Zone 1 is the area within 250 miles of a National Broadcasting Station. Zone 2 is the remainder of the Commonwealth.

Under the Australian Broadcasting Act 1942–1946 the Australian Broadcasting Commission received the following amounts (in parentheses) out of the fee for each broadcast listener's licence :—20s. (11s.), 14s. (11s.), 10s. (5s. 6d.), 7s. (5s. 6d.), 5s. (3s.), 3s. 6d. (3s.). This procedure was repealed, however, by an amendment to the Australian Broadcasting Act, assented to on the 6th December, 1948, whereby the Commission prepares estimates of its receipts and expenditure for each financial year and submits these estimates to the Minister. Appropriations are made by Parliament for the purposes of the Commission and these, together with all other moneys received by the Commission, are paid into an account in the Commonwealth Bank of Australia. From this account all costs, charges, expenses, etc., incurred by the Commission in the exercise of its powers and functions under the Act are defrayed. For particulars of the financial operations of the Commission *see* Chapter XVII.—Public Finance of this Year Book.

(ii) *Commercial Broadcasting Stations.* The services of other broadcasting stations are conducted by private enterprise under licence from the Postmaster-General. Licences are granted on conditions which ensure satisfactory alternative programmes for listeners. The fee for a broadcasting station licence is £25 per annum, plus one-half of one per cent. of the gross earnings from the operations of a station which has made a profit in the year preceding. The maximum initial period of a licence is three years, and it is renewed for a period of one year at the discretion of the Postmaster-General. Licensees of these stations rely for their income on revenue received from the broadcasting of advertisements and other publicity. The number of these stations in operation at 30th June, 1950, was 102 and there are other stations in prospect.

(iii) *Radio Inductive Interference.* The Postmaster-General's Department takes active measures to suppress, so far as possible, interference with broadcast reception resulting from the radiations of energy from electrical machinery and appliances. During the year 1949–50, 7,743 instances of interfering noises were eliminated with the co-operation of the owners of the offending equipment (8,293 in 1948–49).

(iv) *Prosecutions under the Wireless Telegraphy Act.* During the year 1949–50, 2,766 persons were convicted for using unlicensed broadcast receiving equipment (2,184 in 1948–49). The total fines and costs amounted to £7,359 (£4,716 in 1948–49).

5. **Oversea Communication by Wireless.**—(i) *General.* For particulars of the inception of the beam radio service in 1927 and of the events leading up to the constitution of the Oversea Telecommunications Commission in 1946 *see* Official Year Book No. 37 and earlier issues.

(ii) *International Traffic.* Particulars of the international telegraphic traffic by radio are not available separately, but are included with the particulars of the oversea traffic by cable. The combined particulars are shown on pp. 200–1 of this issue.

(iii) *Coast Stations.* There are 23 wireless stations established at points around the Australian coast and 6 about the coast of Papua and New Guinea. During 1949–50 these stations handled 424,312 messages (345,233 paying, 9,693 service and 69,386 weather) with a total of 7,000,058 paying words. Corresponding figures for 1948–49 were 409,474 messages (310,199 paying, 30,696 service and 68,579 weather) with 6,205,886 paying words. For further information *see Transport and Communication Bulletin* No. 41, 1949–50 issued by this Bureau.

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* For particulars of the increases in fees as from 1st January, 1952 *see* Appendix to this volume.

CHAPTER VI.

EDUCATION.

§ 1. General.

1. **Evolution of Educational Systems of the States.**—As the first settlement in Australia was in New South Wales, it was but natural that Australian education should have had its beginning in that State, and consequently the mother State has played a leading part in the evolution of educational method and system in Australia. Detailed particulars may be obtained from the various reports of the State Education Departments. The subject is dealt with in some detail in the first two issues of the Official Year Book, which also contain a more or less detailed account of the origin and earlier development of the educational systems of the other States.

2. **Later Development in State Educational Systems.**—Issues of the Official Year Book up to No. 22 contain an outline of later developments of the educational systems of the various States. The educational systems of the States may now be considered as more or less homogeneous entities, the various stages succeeding one another by logical gradation from kindergarten to university.

3. **School Age.**—The statutory school age for children in each State, set out briefly, is as follows :—New South Wales, 6 to 15 years ; Victoria, 6 to 14 years ; Queensland, 6 to 14 years ; South Australia, 6 to 14 years ; Western Australia, 6 to 14 years ; and Tasmania, 6 to 16 years. Legislation was passed in 1943 in Victoria and Western Australia increasing the school leaving age to 15 years, and in 1946 in South Australia enabling the Governor-in-Council to raise the leaving age by proclamation to an age not exceeding 15 years, but none of these provisions had been proclaimed at the end of December, 1951.

It is provided in some States that where a child is living outside stated distances from a State school, the age at which the child must commence school is increased. Provision is also made that a scholar having attained a certain standard of education may leave school before reaching the statutory leaving age.

At the 1936 Conference of Directors of Education a resolution was passed urging the necessity of raising the compulsory school leaving age to 15 years. This resolution was submitted to a conference in Sydney of Ministers of Education who agreed to recommend to their respective Governments legislation to implement the proposal by the year 1940, but owing to war conditions its operation was postponed.

4. **Australian Council for Educational Research.**—This Council was constituted on 10th February, 1930, as the result of an endowment from the Carnegie Corporation of New York. The endowment terminated in December, 1942, by which time the total value in Australian currency of the annual payments had amounted to £120,000. The Council now receives grants from the Commonwealth Government and the six State Governments amounting to £10,000 a year.

The Council consists of nine members of whom six are elected by State Institutes for Educational Research established in each of the Australian States. Operations are conducted through a Director assisted by a professional and clerical staff of about twenty persons. The functions of the Council are to conduct surveys and inquiries in the educational field, to make grants to approved investigators, to act as a centre of information on educational developments both within Australia and overseas, to provide services of a technical character such as those connected with the assessment of knowledge and aptitude, and to provide training for research workers. In general, through the publication of reports and in other ways, the Council aims at improving the standards of education and at stimulating thought about educational problems. Over 100 reports have been published. These include a series of general Reviews of Education in Australia of which three numbers have so far appeared, the latest covering the years 1940–1948. The Council also issues a series of information bulletins.

The Council is autonomous, but maintains close contact with State educational authorities, with the Commonwealth Office of Education, with the Universities and with other educational bodies. Its present investigations include a comparative survey of the courses of study and examinations for children between ten and thirteen years, made at the request of the State Education Departments, and a study of the prediction of success of University students.

During the 1939–45 War the Council was called upon for advice and service by a number of Commonwealth departments. The Council acts as the chief centre in Australia for the preparation and distribution of standardized tests of general intelligence, special aptitude, and educational attainment. It has set up a Test Division to deal with this aspect of the work.

The head-quarters of the Council are at 147 Collins-street, Melbourne, C.1, Victoria.

§ 2. Census Records.

Persons Receiving Instruction.—The Census and Statistics Act 1905–1938 specified "Education" as a subject for inquiry at a Census, but did not indicate the nature or range of the information to be furnished. The Census and Statistics Act 1946, however, provided for the omission of this subject. At earlier Censuses an inquiry regarding the degree of education was restricted to a question as to ability to read and write, but under the system of compulsory education the number of persons in Australia who reach maturity without being able to read and write is very small, and this question was omitted at the 1933 Census. The only question asked concerned those receiving instruction at the time of the 1933 Census and related to the nature of the school they were attending. Details for the Censuses of 1911, 1921 and 1933 may be found on page 227 and the religions of scholars on page 228 of Official Year Book No. 37.

§ 3. State Schools.

1. **General.**—The State schools, or, as they are sometimes termed, the "public" schools, of Australia comprise all schools directly under State control, in contradistinction to the so-called "private" schools, the bulk of which, though privately managed, nevertheless cater for all classes of the community. Separate information regarding technical education is given in § 9, but the junior technical schools are included hereunder. The returns include figures relating to correspondence schools as well as subsidized schools, but evening schools and continuation classes, where such are in existence, are not included, but are dealt with separately in par. 3 (v) following.

2. **Returns for Year 1949.**—(i) *General.* The following table shows for 1949 the number of State Schools, together with the teachers employed, teachers in training and the number of individual children enrolled :—

STATE SCHOOLS, 1949.

State or Territory.	Schools open at end of year.	Teachers Employed (excluding Teachers in Training).	Teachers in Training.	Net Enrolment.
New South Wales(*a*)	2,603	12,563	2,450	394,301
Victoria	2,145	8,899	1,252	232,048
Queensland	1,556	5,533	810	154,919
South Australia	728	3,285	425	82,920
Western Australia	522	2,365	404	(*b*) 65,676
Tasmania	315	1,409	242	39,632
Northern Territory(*c*)	5	36	..	1,136
Australia—1949	7,874	34,090	5,583	970,632
1948	7,971	33,287	5,194	928,067

(*a*) Includes Australian Capital Territory. (*b*) Average weekly enrolment. (*c*) Year ended 30th June, 1950.

(ii) *Average Enrolment and Attendance.* The methods of calculating enrolment are not identical throughout the States. The unit in South Australia is the daily enrolment, while New South Wales, Victoria, Western Australia and Tasmania employ the weekly enrolment. In Queensland no average enrolment is compiled, and the mean of the four quarterly gross enrolments is the only figure available.

As with enrolments, there is not complete uniformity in arriving at the average attendance, but most of the States aggregate the attendances for the year and divide by the number of school sessions. New South Wales and Western Australia, however, employ averages of term averages. The matter of securing uniformity in these respects has been under consideration for some time, and the Australian Council for Educational Research, already referred to in § 1, par. 4, is devoting attention to the question of securing greater uniformity in methods of collection and presentation of educational data generally. This matter was discussed at a meeting of Directors of Education at a conference held in Sydney in July, 1947. The average enrolment and attendance in each State during 1949 are shown below :—

STATE SCHOOLS : AVERAGE ENROLMENT AND ATTENDANCE, 1949.

State or Territory.	Average Weekly Enrolment.	Average Daily Attendance.	Ratio of Attendance to Enrolment.
			%
New South Wales	362,258	319,646	88.24
Victoria	218,308	195,453	89.53
Queensland	153,550	128,717	83.83
South Australia	78,982	71,996	91.15
Western Australia	65,676	60,504	92.12
Tasmania	37,346	33,465	89.61
Northern Territory(a)	1,136	1,019	89.70
Australia—1949	917,256	810,800	88.39
1948	869,861	770,554	88.58

(a) Year ended 30th June, 1950.

The ratio of attendance to enrolment is lowest in Queensland, but this figure is not comparable with those of the other States, as no average enrolment is available for Queensland.

Extraordinary epidemics apart, it would appear from the steadiness of the returns in recent years that the ratio of attendance to enrolment is approaching its maximum under present conditions in Australia. Recurring epidemics of contagious diseases, minor illnesses, bad weather and long distances are all serious factors which affect the full attendance of pupils at school.

The average attendance at the State Schools in Australia is shown below for the year 1891 and at varying intervals to 1949 :—

STATE SCHOOLS : AVERAGE ATTENDANCE, AUSTRALIA.

Year.	Total Population. (a)	Average Attendance.	Year.	Total Population. (a)	Average Attendance.
	'000			'000	
1891	3,421	350,773	1941	7,144	732,116
1901	3,825	450,246	1945	7,430	726,440
1911	4,574	463,799	1946	7,518	731,058
1921	5,511	666,498	1947	7,639	754,799
1931	6,553	817,262	1948	7,795	770,554
1933	6,657	805,334	1949	8,051	810,800
1939	7,005	744,095			

(a) At 31st December.

It is possible, for some Census years, to relate with reasonable accuracy the average attendance of scholars at State Schools to the number of children who are approximately of school age. For this purpose the ages 5 to 15 years, both included, have been taken and the average attendance per thousand children was :—1891, 455 ; 1901, 464 ; 1911, 477 ; 1921, 544 ; and 1933, 585. Although other factors might have affected the results in a minor degree it would appear that considerable improvement has taken place in school attendance.

(iii) *Schools in the Northern Territory.* During 1949–50 five public schools were in operation, the number of pupils enrolled being 1,130, with an average daily attendance of 1,019. By arrangement between the Commonwealth and the South Australian Governments, the South Australian Education Department undertook the work of education in the Northern Territory from 1st January, 1945. The Commonwealth Government provides the schools and furniture, while the South Australian Education Department provides the teachers and determines the curricula for the various types of schools.

For further particulars of education facilities in the Northern Territory *see* Chapter X.—The Territories of Australia, Northern Territory, § 10.

(iv) *Schools in the Australian Capital Territory.* During 1949 ten State Schools were in operation in the Australian Capital Territory ; individual pupils enrolled numbered 2,235 ; and average attendance was 2,020. By arrangement with the Commonwealth Government these schools are conducted by the New South Wales Education Department in the same way as the ordinary State Schools, the Department being recouped for expenditure. The cost of the teaching staff in 1949–50 was £60,000, while the cost of general maintenance items for the year amounted to £34,423. Ample provision has been made for both primary and secondary education, and this will be increased to meet requirements. The figures quoted exclude enrolment, etc., at the Canberra Technical College and the Evening Continuation School. A reference to the Canberra University College will be found in § 6, par. 10. For further particulars of education facilities in the Australian Capital Territory *see* Chapter X.—The Territories of Australia, Australian Capital Territory, par. 10.

3. Distribution of Educational Facilities.—(i) *In Sparsely-settled Districts.*

(*a*) *General.* The methods adopted in the various States to carry the benefits of education into the remotest and most sparsely-settled areas are set out in some detail in previous issues of the Official Year Book (*see* No. 22, pp. 430–1).

(*b*) *Correspondence Teaching.* Teaching by correspondence has been adopted to meet the needs of children out of reach of the ordinary means of education, including those prevented from attending school through physical ailment. Approximately 14,600 children received instruction in this way during 1949, the respective numbers in each State being : New South Wales, 5,419 ; Victoria, 1,193 ; Queensland, 4,884 ; South Australia, 1,141 ; Western Australia, 1,646 ; and Tasmania, 298.

(ii) *Centralization of Schools.* The question of centralization of schools adopted so successfully in America and Canada has received considerable attention in Australia. It is recognized that a single adequately staffed and well equipped central institution can give more efficient teaching than a number of small scattered schools in the hands of less highly trained teachers, and the small schools in some districts were therefore closed and the children conveyed to the central institution. The principle was first adopted in New South Wales in 1904, and in 1949 a sum of £153,389 was expended in boarding allowances and conveyance to central schools. Cost of conveyance to State Schools in Victoria during 1949–50 amounted to £440,186. In Queensland during 1949–50 the cost of transport by rail, road and boat, amounted to £74,301. In South Australia the sum of £132,375 was disbursed in travelling expenses of school children in 1949, while £282,800 was spent in Western Australia during 1949–50, £108,885 in Tasmania in 1949 and £15,898 in the Australian Capital Territory in 1949–50.

(iii) *Area Schools.* A new feature in education is the "Area School" established since 1936 in rural districts in Tasmania. These schools cater for certain groups of children brought from surrounding districts by buses and give instruction with a distinct rural inclination. In 1949 there were 22 area schools in operation having an average weekly enrolment of 6,172 scholars with an average daily attendance of 5,396.

(iv) *Education of Backward and Defective Children.* This subject was referred to at some length in preceding issues of the Official Year Book (*see* No. 22, pp. 431–2).

(v) *Evening Schools.* Evening Continuation Schools have been in existence for many years in some of the States, but their progress has been uncertain. The aim of these schools is to provide a means of furthering the education of those who have left school at the termination of the primary course. Practical and cultural subjects are combined in the curriculum to be of assistance to those attending, in their occupations and their civic life. In New South Wales the 30 Evening Colleges had an average weekly enrolment in 1949 of 7,870, excluding classes for migrants. The colleges are divided into three groups, junior technical, domestic science, and commercial.

(vi) *Higher State Schools.* In all the States higher schools have been established which provide advanced courses of instruction for pupils who have completed the primary grades. Reference to the development of these schools will be found in preceding Official Year Books (*see* No. 22, pp. 433–4).

(vii) *Agricultural Training in State Schools.* Extended reference to the methods adopted in the teaching of agriculture in State Schools was incorporated in preceding Official Year Books (*see* No. 22, pp. 434–7).

(viii) *Medical and Dental Inspection of School Children.* This subject is dealt with in detail in Chapter VIII.—Public Health and Related Institutions.

(ix) *Broadcasts to Schools.* It is estimated that about 60 per cent. of all schools in Australia are registered listeners to the Australian Broadcasting Commission's school broadcasts. School broadcasting is recognized by the educational authorities, public and private, as an integral part of Australian school education. Free radio licences were granted to all schools under the Broadcasting Act 1948. The broadcasts, which are designed to supplement the work of the classroom teacher, are programmed throughout Australia on week-days at times decided upon after consultation with the State Education Departments. There are special broadcast sessions for the benefit of correspondence pupils in the outback areas throughout Australia.

School broadcasts cover a wide range of subjects, for all school grades, including English Literature, Music, Art, History, Geography, Social Studies, Current Affairs, Nature Study, Science, Health and Hygiene, and French.

The broadcasts vary in length from 15 to 30 minutes, amounting to a total of about one hour on each school day, and extending through the greater part of the school year.

Audio-visual education, a method combining the radio and film as teaching aids, has been extensively developed in Victoria, where nearly half of the registered listening schools are also equipped with film-strip projectors. Radio-film broadcasts have also been used in experimental stages in Western Australia, South Australia and Tasmania.

The Kindergarten of the Air, primarily designed for the benefit of children unable to attend kindergarten schools, is broadcast on week-days throughout the year, and relayed over all regional and short-wave stations; it is also broadcast from Port Moresby and over W.L.K.S., the station of the Army of Occupation in Japan. A weekly excerpt is broadcast by Radio Australia.

During UNESCO week school sessions are broadcast both on National relay and in State programmes.

In collaboration with the Commonwealth Office of Education, a series of two weekly broadcasts has been arranged to help foreign migrants with their English. The scripts for the series, which is called "English for New Australians", are written by experts appointed by the Commonwealth Office of Education, and produced by the Australian Broadcasting Commission. These sessions are broadcast throughout Australia.

4. **Training Colleges.**—The development of the training systems of the various States is referred to at some length in earlier issues of the Official Year Book (*see* No. 22, pp. 437–9).

5. **Expenditure.**—(i) *Maintenance — All Schools.* The net expenditure on maintenance in all grades of schools, excepting senior technical, and in Victoria and (until 1946) Tasmania junior technical, schools, and the cost per head of average attendance for 1939 and the five years ended 1949 are shown in the following table. The figures do not include expenditure on buildings, which is shown separately in a subsequent table. In all expenditure tables the figures for Victoria, Queensland and Western Australia relate to the financial year ended six months later than the calendar year.

STATE SCHOOLS : NET EXPENDITURE ON MAINTENANCE.

Year.	N.S.W. (*a*)	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Nor. Terr.	Total.
				TOTAL (INCLUDING SECONDARY SCHOOLS). (£.)				
1939	4,598,376	2,667,094	1,481,399	854,037	730,500	320,616	6,802	10,658,824
1945	5,386,412	3,265,201	2,056,409	1,100,469	917,323	492,106	5,185	13,223,105
1946	6,162,468	3,919,753	2,266,778	1,233,700	1,082,570	560,168	10,162	15,235,599
1947	7,512,623	4,533,365	2,465,221	1,533,470	1,435,885	*b*688,155	15,164	18,213,883
1948	8,065,326	5,226,383	2,898,833	1,703,589	1,488,193	*b*810,342	25,580	20,218,246
1949	9,426,879	6,302,596	3,385,274	1,953,121	1,801,259	*b*928,291	35,322	23,832,742
				PER HEAD OF AVERAGE ATTENDANCE. (£ *s.* *d.*)				
1939	15 12 2	14 1 4	13 0 9	12 18 4	14 5 7	11 7 6	11 3 9	14 6 7
1945	18 7 4	18 8 11	18 12 1	17 2 3	17 9 9	17 5 4	13 0 5	18 4 1
1946	21 3 0	21 16 1	20 2 9	19 3 0	20 5 4	19 6 6	18 12 3	20 16 10
1947	24 2 11	24 11 11	21 1 10	23 0 10	25 13 1	22 11 5	23 5 10	24 2 7
1948	26 10 6	27 16 0	23 18 6	25 6 0	25 16 9	25 12 3	34 16 0	26 4 9
1949	29 9 10	32 4 11	26 6 0	27 2 7	29 15 5	27 14 10	34 13 3	29 7 11

(*a*) Gross figures, receipts not being available. (*b*) Includes junior technical schools. *See* above.

(ii) *Maintenance—Secondary Schools.* The figures shown in the preceding table refer to expenditure on maintenance of all State primary and secondary schools, excluding senior technical colleges. It has been the practice of the State Education Departments to give separate information in regard to the cost of secondary education. The difficulty of making any satisfactory allocation of the kind, however, will be understood when it is realized that both elementary and higher education are in some instances given in the same school and by the same teacher. Unfortunately, too, the term "secondary" has not the same meaning in all States. It might be mentioned here that similar difficulties arise in connexion with the apportionment amongst the various branches of expenditure on administration, inspection and the training of teachers. The figures quoted in regard to cost hereunder have been mainly extracted from the Reports of the State Education Departments, and are subject to those qualifications.

STATE SECONDARY SCHOOLS : EXPENDITURE ON MAINTENANCE.

State.	1948.			1949.		
	Cost.	Cost per Head of Population.		Cost.	Cost Per Head of Population.	
	£	s.	d.	£	s.	d.
New South Wales	2,447,484	16	2	2,714,690	17	6
Victoria	1,250,968	11	10	1,529,059	14	1
Queensland	293,610	5	2	333,839	5	9
South Australia	464,180	14	1	488,036	14	6
Western Australia	384,574	14	9	404,602	14	10
Tasmania (*a*)	185,096	14	0	185,510	13	7

(*a*) Includes high and junior technical schools.

The figures in all cases exclude the cost of buildings. In Queensland, the figure quoted excludes the cost of the Agricultural High School and College, which amounted in 1948-49 to £79,968 and in 1949-50 to £98,604. For Western Australia the total for 1948-49 includes £95,717 and for 1949-50, £83,775 on account of "post primary" education.

(iii) *Buildings.* Expenditure on State School buildings, excluding senior technical colleges, for the years 1939 and 1945 to 1949 was as follows :—

STATE SCHOOLS : EXPENDITURE ON BUILDINGS.

(Including Loan Fund Expenditure.)

(£.)

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Nor. Terr.	Total.
1939	411,720	206,481	174,725	85,539	56,994	60,011	539	996,009
1945	425,397	256,048	114,069	165,642	99,489	70,288	2,303	1,133,236
1946	569,660	376,557	149,354	152,205	137,835	116,215	2,318	1,504,144
1947	747,294	540,036	275,153	231,967	203,926	92,462	2,261	2,093,099
1948	1,069,789	1,017,227	306,776	261,683	303,213	185,286	1,790	3,145,764
1949	1,277,015	2,015,972	442,753	355,494	454,207	288,057	12,522	4,846,020

The totals for the various States in 1949 include the following amounts expended from loan and other funds; figures for 1948 are shown in brackets—New South Wales, £685,436 (£477,869); Victoria, £1,886,822 (£858,856); Queensland, £313,392 (£203,787); South Australia, £236,169 (£167,218); Western Australia, £309,082 (£198,518); and Tasmania, £225,239 (£134,344).

(iv) *Total.* The net total cost of education in State Schools, including buildings, during the years 1939 and 1945 to 1949 was as follows :—

STATE SCHOOLS : NET TOTAL COST.

(£.)

Year.	N.S.W. (a)	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Nor. Terr.	Total.
1939	5,010,096	2,873,575	1,656,124	939,576	787,494	380,627	7,341	11,654,833
1945	5,811,809	3,521,249	2,170,478	1,266,111	1,016,812	562,394	7,488	14,356,341
1946	6,732,128	4,296,310	2,416,132	1,385,905	1,220,405	670,383	12,480	16,739,743
1947	8,289,917	5,073,401	2,740,374	1,765,437	1,639,811	b 780,617	17,425	20,306,982
1948	9,135,115	6,243,610	3,205,609	1,965,272	1,791,406	b 995,628	27,370	23,364,010
1949	10,703,894	8,318,568	3,828,027	2,308,615	2,255,466	1,216,348 (b)	47,844	28,678,762

(a) Gross figures, receipts not being available. (b) Includes junior technical schools. *See* below.

The figures in this and the preceding tables refer to all grades of State Schools, with the exception of senior technical, and in Victoria and (until 1946) Tasmania junior technical, schools. Including buildings, the net cost per scholar in average attendance for the whole of the State schools in Australia amounted in 1948 to £30 6s. 5d., and in 1949 to £35 7s. 5d. as compared with £4 9s. 3d. in 1901.

6. **School Banking.**—Particulars of School Savings Banks are included in Chapter XVI.—Private Finance.

§ 4. Private Schools.*

1. **Returns for 1949.**—The following table shows the number of private schools together with the teachers engaged therein, and the enrolment and average attendance in 1949 :—

PRIVATE SCHOOLS, 1949.

State or Territory.	Schools.	Teachers.	Enrolment.	Average Attendance.
New South Wales(a)	716	5,638	118,560	106,672
Victoria	472	3,015	86,096	(b) 77,486
Queensland	250	1,783	41,106	37,177
South Australia	146	920	18,426	16,424
Western Australia	198	798	20,280	18,988
Tasmania	59	360	8,497	7,121
Northern Territory(c)	2	12	341	296
Total—1949	1,843	12,526	293,306	264,164
1948	1,835	12,408	281,354	251,092

(a) Includes Australian Capital Territory. (b) Estimated. (c) Year ended 30th June, 1950.

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* Private schools include all schools not wholly under State control. The term "private," though popularly applied, is, of course, a misnomer.

The Roman Catholic schools comprise the largest group of private schools in Australia. On the basis of the figures available, approximately 222,000 children, or 76 per cent. of the total in private schools, are educated in Roman Catholic schools.

The figures for Queensland include the returns from Grammar schools, of which there are eight—five for boys and three for girls, with an enrolment of 966 boys and 645 girls. These schools are governed by boards of trustees, partly nominated by the Government, and partly by the subscribers to the funds. The trustees make regulations regarding the fees of scholars, the salaries of teachers, and generally for the management of the schools. The Government endowment received in 1949–50 amounted to £32,200. In addition, a sum of £17,133 was received by way of fees for the tuition of State scholarship holders while £62,049 was paid to denominational schools. The Grammar schools are inspected annually by officers of the Department of Public Instruction.

2. **Growth of Private Schools.**—The enrolment and average attendance at private schools in 1891 and at varying intervals to 1949 were as follows :—

PRIVATE SCHOOLS : ENROLMENT AND ATTENDANCE.

Year.	Enrolment.	Average Attendance.	Year.	Enrolment.	Average Attendance.
1891	124,485	99,588	1945	272,814	249,024
1901	148,659	120,742	1946	276,561	252,726
1911	160,794	132,588	1947	280,543	257,430
1921	198,688	164,073	1948	281,354	251,092
1931	221,387	189,665	1949	293,306	264,164
1939	247,482	219,171			

3. **Registration of Private Schools.**—Conditions in regard to the registration of private schools were referred to in previous Official Year Books (*see* No. 18, p. 451).

§ 5. Free Kindergartens.

The following information regarding Free Kindergartens has been compiled from particulars supplied by the principals of the chief institutions or the organizing secretary in each State, except in the case of Western Australia where the details were furnished by the Education Department. It refers to kindergarten unions or associations, and excludes the kindergarten branches in the Government schools of the various States.

FREE KINDERGARTENS, 1950.

State.	No. of Schools.	Average Attendance.	Permanent Instructors.	Student Teachers.	Voluntary Assistants.
New South Wales ..	33	1,491	86	32	..
Victoria..	43	1,541	93	..	65
Queensland	6	250	13	..	..
South Australia(a) ..	67	2,171	135	..	8
Western Australia ..	35	695	55	6	..
Tasmania	10	325	20	..	..
Total—1950 ..	194	6,473	402	38	73
1949 ..	186	6,446	385	72	112

(a) Includes affiliated suburban and country centres.

Only 26 of these 194 kindergartens in 1950 were located outside metropolitan areas; these were as follows:—New South Wales—three at Newcastle; Victoria—two each at Geelong and Ballarat, one each at Bairnsdale, Castlemaine, Euroa, Horsham, Maryborough, Mildura and Red Cliffs; South Australia—one at Nuriootpa; Western Australia—two at Kalgoorlie and one each at Carnarvon, Geraldton, Kojunup, Merredin and Northam; Tasmania—two at Launceston and one each at Devonport and St. Mary's. In each capital city, excepting Hobart, there is a training college and the number of students in training during 1950 was 114 in Sydney, 117 in Melbourne, 29 in Brisbane, 29 in Adelaide, and 31 in Perth.

§ 6. Universities.

1. **Origin and Development.**—A brief account of the origin and development of the Universities in the various States is given in preceding issues of the Official Year Book (*see* No. 22, pp. 442–3). Details of the Australian National University for the year 1950 are shown in paragraph 9 and for the New South Wales University of Technology in paragraph 12 following.

2. **Teaching and Research Staff.**—The following table shows the number of professors, readers, associate and assistant professors, lecturers in charge, lecturers full-time and part-time, demonstrators and tutors full-time and part-time, honorary lecturers and demonstrators, on the teaching and research staffs of the Universities during the years 1948 to 1950:—

UNIVERSITIES: TEACHING AND RESEARCH STAFF, 1950.

University.	Professors.	Readers, Associate Professors, Assistant Professors, Lecturers in Charge.	Lecturers.(*a*)		Demonstrators and Tutors.		Honorary Lecturers and Demonstrators.	Total.
			Full-time.	Part-time.	Full-time.	Part-time. (*b*)		
Sydney	51	17	261	358	74	47	42	850
Melbourne	40	27	190	150	91	78	4	580
Queensland (Brisbane)	28	15	115	163	25	..	(*c*) 12	358
Adelaide	25	23	74	46	9	..	2	179
Western Australia (Perth)	14	7	56	36	21	14	..	148
Tasmania (Hobart)	16	2	39	9	7	1	..	74
New England University College	..	8	27	4	6	2	13	60
Canberra University College	3	..	16	20	..	6	2	47
New South Wales University of Technology	7	..	2	83	..	..	..	92
Total 1950	184	99	780	869	233	148	75	2,388
1949	170	102	705	820	236	267	92	2,392
1948	159	97	680	696	274	237	104	2,247

(*a*) Includes Senior Lecturers and Assistant Lecturers. (*b*) Excludes part-time Demonstrators in 1950. (*c*) Includes Department of External Studies, 10.

The Conservatorium of Music in Sydney is attached to the Education Department, but in Melbourne and in Adelaide the Conservatorium of Music is under the control of the University.

3. **Students.**—(i) *Total.* The number of students, including Commonwealth Recordstruction Training Scheme students, enrolled for courses at the Universities during the years 1948 to 1950 is shown in the following table.

UNIVERSITIES : TOTAL STUDENTS ENROLLED, 1950.

University.	Degree Courses.	Diploma Courses. Post-Graduate.	Diploma Courses. Sub-Graduate.	Certificate Courses.	Miscellaneous Subjects.	Total. (a)
Sydney	8,219	168	715	..	388	9,383
Melbourne (b)	7,303	..	482	178	980	9,003
Queensland (Brisbane) ..	3,159	42	387	389	268	4,245
Adelaide	2,587	89	1,002	..	986	4,664
Western Australia (Perth) ..	1,761	29	..	..	50	1,840
Tasmania (Hobart) ..	492	27	2	47	108	670
New England University College	196	39	2	..	6	243
Canberra University College	196	..	39	..	96	331
New South Wales University of Technology	251	..	..	..	..	251
Total 1950, ..	24,224	394	2,629	614	2,882	30,630
1949 ..	25,230	345	2,810	605	2,787	31,753
1948 ..	25,857	385	2,892	620	2,733	32,453

(a) Adjustment made for students enrolled for more than one course. (b) Includes 15 students enrolled but attending Canberra University College.

Of the total students in 1950, 24,023 were males and 6,607 females. Included in those enrolled for degrees were 20 enrolled for higher degree courses in Sydney, 260 in Melbourne, 11 in Queensland, 129 in Adelaide, 48 in Western Australia, 13 in Tasmania, 9 at the Canberra University College, and 6 at the New South Wales University of Technology.

(ii) *Commonwealth Reconstruction Training Scheme Students.* The number of Commonwealth Reconstruction Training Scheme students enrolled for courses at the Universities during 1948 to 1950 is shown in the following table :—

UNIVERSITIES : COMMONWEALTH RECONSTRUCTION TRAINING SCHEME STUDENTS ENROLLED, 1950.

University.	Degree Courses.	Diploma Courses. Post-Graduate.	Diploma Courses. Sub-Graduate.	Certificate Courses.	Miscellaneous Subjects.	Total (a)
Sydney	2,139	70	97	..	..	2,306
Melbourne (b)	1,974	..	130	82	110	2,296
Queensland (Brisbane) ..	699	22	137	181	45	1,084
Adelaide	558	17	262	..	76	913
Western Australia (Perth) ..	374	8	..	..	7	389
Tasmania (Hobart) ..	114	7	..	2	15	137
New England University College	11	5	..	..	..	16
Canberra University College	51	..	17	..	6	74
New South Wales University of Technology	21	..	..	..	..	21
Total 1950 ..	5,941	129	643	265	259	7,236
1949 ..	8,300	121	930	310	431	10,087
1948 ..	10,182	80	1,287	337	614	12,464

(a) Adjustment made for students enrolled for more than one course. (b) Includes 2 students enrolled but attending Canberra University College.

Of the total Commonwealth Reconstruction Training Scheme students in 1950, 7,070 were males and 166 females. Included in those enrolled for degrees were 50 enrolled for higher degrees in Melbourne, 2 in Queensland, 16 in Adelaide, 13 in Western Australia, and 2 in Tasmania.

(iii) *New Students Enrolled.* The number of new students, including Commonwealth Reconstruction Training Scheme students, enrolled for courses at the Universities during the year 1950 is shown in the following table :—

UNIVERSITIES : NEW STUDENTS ENROLLED, 1950.

University.	Degree Courses.	Diploma Courses.		Certificate Courses.	Miscellaneous Subjects.	Total. (a)
		Post-Graduate.	Sub-Graduate.			
Sydney	2,012	..	428	..	..	2,409
Melbourne	1,345	..	68	8	361	1,782
Queensland (Brisbane) ..	611	1	110	61	122	905
Adelaide	430	..	187	..	346	963
Western Australia (Perth) ..	422	..	..	..	17	439
Tasmania (Hobart) ..	136	1	..	12	37	185
New England University College	64	..	1	..	..	65
Canberra University College	53	..	12	..	66	131
New South Wales University of Technology	155	..	..	..	..	155
Total	5,228	2	806	81	949	7,034

(a) Adjustment made for students enrolled for more than one course.

Of the total new students enrolled in 1950, 5,046 were males and 1,988 females Included in those enrolled for degrees were 13 enrolled for higher degree courses in Melbourne, 2 in Queensland, and 5 at the Canberra University College.

(iv) *New Commonwealth Reconstruction Training Scheme Students.* The number of new Commonwealth Reconstruction Training Scheme students enrolled for courses at the Universities during 1950 is shown in the following table :—

UNIVERSITIES : NEW COMMONWEALTH RECONSTRUCTION TRAINING SCHEME STUDENTS ENROLLED, 1950.

University.	Degree Courses.	Diploma Courses.		Certificate Courses.	Miscellaneous Subjects.	Total.
		Post-Graduate.	Sub-Graduate.			
Sydney	156	..	43	..	..	199
Melbourne	97	..	..	..	17	114
Queensland (Brisbane) ..	31	..	28	3	6	68
Adelaide	9	..	15	..	10	34
Western Australia (Perth) ..	27	..	..	..	5	32
Tasmania (Hobart) ..	11	..	..	..	1	12
New England University College	..	..	..	..	..	..
Canberra University College	6	..	1	..	4	11
New South Wales University of Technology	4	..	..	..	..	4
Total	341	..	87	3	43	474

Of the 474 new Commonwealth Reconstruction Training Scheme students 460 were males, including 2 males enrolled in Melbourne for higher degrees, and 14 females.

4. **University Receipts.**—The receipts of the Universities are derived principally from State and Commonwealth Government grants, students' fees, and income from private foundations, etc. From all sources other than new bequests the receipts during 1950 for general university functions were as shown in the table below. In South Australia Government grants and income from private foundations include amounts in respect of the Waite Agricultural Research Institute. The receipts and expenditure for extra-university activities are shown in par. 7 following.

UNIVERSITIES : RECEIPTS, GENERAL ACTIVITIES, 1950.

(£.)

University.	Government Grants.	Students' Fees.	Interest, Rent, Dividends and Donations.	Other.	Total.
Sydney	338,264	326,051	52,922	17,978	735,215
Melbourne	545,099	184,997	32,751	43,166	806,013
Queensland (Brisbane) ..	323,197	78,862	17,963	18,769	438,791
Adelaide	237,643	71,645	37,877	19,113	366,278
Western Australia (Perth) ..	204,744	11,475	2,551	14,962	233,732
Tasmania (Hobart) ..	127,992	9,253	459	3,171	140,875
New England University College	79,331	3,608	289	17,685	100,913
Canberra University College	31,300	4,189	111	470	36,070
New South Wales University of Technology	80,055	6,466	..	42	86,563
Total 1950 ..	1,967,625	696,546	144,923	135,356	2,944,450
1949 ..	1,485,278	771,298	145,941	127,731	2,530,248
1948 ..	1,202,504	765,984	144,541	124,281	2,237,310

The figures in the foregoing table do not include the value of new foundations received by the Universities, which, in 1950, were as follows:—Sydney, £41,709; Melbourne, £50,373; Queensland, £15,484; Adelaide, £80,021; Tasmania, £1,077; New England University College, £2,503; Canberra University College, £205; and New South Wales University of Technology, £74,172.

5. **Principal University Benefactions.**—In preceding issues of the Official Year Book information is given in some detail in regard to the extent to which the Universities have benefited from private munificence. Space will permit of reference herein to the more important benefactions only.

The endowments to the Sydney University include the Challis Fund, £374,080; the G. H. Bosch Fund, £268,029; the P. N. Russell Fund, £101,457; the Oswald Watt Fund, £115,744; and the Fisher Estate, £43,386. In addition, the University receives a large annual revenue from the trustees of the McCaughey bequest. Excluding the principal of the latter, the credit balances of the private foundations amounted to £1,710,291 at 31st December, 1950.

Endowments to the Melbourne University include Mr. Sidney Myer's gifts for various special and general purposes amounting to £60,000, while Sir Samuel Gillott, Mr. Edward Wilson (Argus Trust), and Sir Samuel Wilson contributed £41,000, £34,000 and £30,000 respectively. The estate of the late Miss Helen Mackie provided £50,000 for the endowment of pre-clinical chairs, while Mr. R. B. Ritchie's gifts for the endowment of a Chair of Economics amounted to £30,000, and two sums of £30,000 and £25,000 were received from the Supreme Court Library Fund for the endowment of a Chair of Public Law and for the development of law teaching respectively. Dr. James Stewart founded scholarships in Anatomy, Medicine and Surgery to the capital value of £26,000. The Hon. Francis Ormond contributed £20,000 to the University as an endowment for the Chair of Music and for scholarships in music, and the late Dr. F. Haley left £70,000 for medical research. Bequests of approximately £20,000 each for general purposes were made by Mr. John Hastie and Mr. C. D. Lloyd. The late Sir John Higgins bequeathed £26,000 for research scholarships in industrial chemistry and biochemistry as related to the pastoral and agricultural industries. Mr. R. J. Fletcher gave £20,000 for medical research. The late Mr. E. Truby Williams gave £54,000 for the Conservatorium of Music, the library and general purposes. Mr. Russell Grimwade has given £50,000 for a new school of biochemistry, and the trustees of the W. L. Baillieu Trust have given £47,795 of a gift of about £100,000 with which a new library will be built. The *Melbourne Herald* gave £30,000 to establish the first Chair of Fine Arts in Australia. From the estate of the late Mr. W. P. Greene £25,000 has been received for cancer research and from the Baillieu family £30,000 for the erection of a Metallurgy Research School. A bequest of £22,500 has been received from the estate of the late Dr. Georgina Sweet to provide three fellowships in Economic Zoology, Medicine and Economic Geology. Of £30,000 promised by an anonymous benefactor to provide for a Vice-Director of the Conservatorium of Music, £18,000 has been received. Amounts of £20,000 were given by the family of the late Sir Thomas Lyle for a research fellowship in physics and by Nicholas Pty. Ltd. for building a School of Nutrition.

Queensland University to 30th April, 1951 had received £275,736 from the McCaughey estate and £50,188 from the Walter and Eliza Hall Trust, while the Hon. T. C. Beirne gave £20,000 in 1935 for the endowment of a Chair of Law in Queensland. The permanent site for the University and other land valued at £62,000 were presented by Dr. and Miss Mayne. In 1937 the trustees of Mr. W. Robertson bequeathed £19,400 for the Chair of Agriculture.

The chief benefactors to the Adelaide University have been Sir George Murray, and his sister Miss M. T. Murray, £134,000 ; Mr. Peter Waite and his daughter Elizabeth Macmeikan, £120,000 ; Sir Thomas Elder, £100,000 ; Sir Langdon Bonython, £72,000 ; Mr. T. E. Barr Smith, £44,000 ; Dr. F. Lucas Benham, £44,000 ; Mrs. R. F. Mortlock and her son Mr. J. T. Mortlock, £30,000 ; Mrs. Jane Marks, £30,000 ; Broken Hill Prop. Co. Ltd., £30,000 ; Mr. Edward Neale, £28,000 ; family of Mr. John Darling, £25,000 ; Sir William Mitchell, £25,000 ; Mrs. A. M. Simpson and Miss A. F. Keith Sheridan, £20,000 ; Sir Walter Hughes, £20,000 ; and Mr. R. Barr Smith and family, £20,000.

Under the will of Sir Winthrop Hackett the University of Western Australia received £425,000 for the erection and maintenance of University buildings and for studentships, scholarships, bursaries and other financial help for deserving students. In addition, an endowment of £18,000 was made in 1913 for the Hackett Chair of Agriculture. The late Robert Gledden bequeathed an estate valued at £60,000, particularly to provide travelling scholarships, and numbers of bequests, aggregating about £55,000, have been made to the University mainly for the establishment of a medical school or research in connexion therewith.

6. University Expenditure.—The principal item of disbursements under the general University activities consists of the salaries of teaching and research staff, representing 69.4 per cent. of the total in 1950 compared with 67.9 per cent. in 1949 and 68.5 per cent. in 1948. The following table shows the expenditure, excluding capital expenditure on buildings, during the years 1948 to 1950 :—

UNIVERSITIES : EXPENDITURE, GENERAL ACTIVITIES, 1950.

(£.)

University.	Administration.	Maintenance of— Teachers' Department.			Other.	Total.
		Teachers' Department.	Premises.	Libraries.		
Sydney	80,289	588,240	83,697	21,909	35,018	809,153
Melbourne	63,289	559,705	100,670	33,490	90,273	847,427
Queensland (Brisbane) ..	23,055	310,767	42,559	14,460	22,172	413,013
Adelaide	19,669	271,576	33,153	15,463	29,803	369,664
Western Australia (Perth)	18,933	146,596	38,338	10,696	17,756	232,319
Tasmania (Hobart) ..	15,775	93,244	8,847	10,720	8,008	136,594
New England University College ..	12,492	39,790	15,584	3,705	29,140	100,711
Canberra University College	8,496	24,438	796	4,095	152	37,977
New South Wales University of Technology ..	6,825	71,548	3,393	299	4,498	86,563
Total 1950 ..	248,823	2,105,904	327,037	114,837	236,820	3,033,421
1949 ..	217,775	1,812,141	284,454	89,027	264,183	2,667,580
1948 ..	207,291	1,582,262	244,801	66,734	210,356	2,311,444

7. Extra-University Activities.—(i) *General.* The tables shown in paragraphs 4 and 6 relate to the general University activities while those following show the financial position of all extra-university activities. The heterogeneous character of the items in the statements for these activities varies to such extent between the Universities that comparisons of the totals are misleading, but they include all items excluded from the general statement and give useful information within limits.

(ii) *Receipts, Extra-University Activities.* The following table shows the main receipts for the years 1948 to 1950:—

UNIVERSITIES : RECEIPTS, EXTRA ACTIVITIES, 1950.

(£.)

University.	Government Grants.	Interest, Rent, and Dividends.	Candidates' Fees, Public Examinations.	Special Research Grants.	Other.	Total.
Sydney	16,750	194,044	4,395	39,393	2,672	257,254
Melbourne	1,100	52,264	31,918	75,329	a 101,976	262,587
Queensland (Brisbane)	2,100	23,516	19,495	27,739	24,016	96,866
Adelaide	9,125	10,250	11,428	31,137	2,508	64,448
Western Australia (Perth)	1,850	18,307	15,367	16,710	(b)41,898	94,132
Tasmania (Hobart) ..	2,000	497	2,079	11,802	10,189	26,567
New England University College ..	..	198	..	..	..	198
Canberra University College	2,916	..	..	..	..	2,916
New South Wales University of Technology	..	..	..	7,560	..	7,560
Total 1950 ..	35,841	299,076	84,682	209,670	183,259	812,528
1949 ..	33,519	180,042	82,848	178,654	129,483	604,546
1948 ..	31,150	159,124	105,016	173,708	123,869	592,867

(a) Includes receipts, Superannuation Fund, £30,200, and University Press, £38,617. (b) Includes University Press, £24,014.

(iii) *Expenditure, Extra-University Activities.* The following table shows the main items of expenditure for the years 1948 to 1950 :—

UNIVERSITIES : EXPENDITURE, EXTRA ACTIVITIES, 1950.

(£.)

University.	Salaries, Fees, etc.	Public Examination Expenses.	Adult Education and Extension.	Special Research Expenses.	Other.	Total.
Sydney	31,229	..	8,247	107,517	18,914	165,907
Melbourne	8,808	35,551	2,032	103,129	*a* 100,633	250,153
Queensland (Brisbane)	..	25,187	4,256	25,268	(*b*)43,910	98,621
Adelaide	5,261	10,018	3,164	30,920	13,850	63,213
Western Australia (Perth)	..	14,711	19,663	16,843	(*c*)40,400	91,617
Tasmania (Hobart) ..	..	1,998	10	21,572	11,265	34,845
New England University College ..	..	..	..	..	(*d*) 49	49
Canberra University College	..	..	..		(*d*) 1,605	1,605
New South Wales University of Technology	..	..	..	7,171	..	7,171
Total 1950 ..	45,298	87,465	37,372	312,420	230,626	713,181
1949 ..	47,384	81,434	33,153	283,207	185,344	630,522
1948 ..	69,801	79,153	29,232	198,586	180,877	557,649

(*a*) Includes University Press, £36,972, Superannuation Fund, £25,938. (*b*) Includes University Press, £18,075. (*c*) Includes Scholarships, £17,335, and the University Press, £22,846. (*d*) Scholarships.

8. **Degrees Conferred, etc.**—The following table shows the number of degrees conferred and diplomas and certificates granted at each University for the year 1950 :—

UNIVERSITIES : DEGREES CONFERRED, AND DIPLOMAS AND CERTIFICATES GRANTED, 1950.

Particulars.	Sydney.		Melbourne.		Queensland.		Adelaide.		Western Australia.		Tasmania.		Total.	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
Degrees—														
Arts	330	207	328	108	75	31	46	32	74	42	18	13	871	433
Law	145	9	70	2	15	..	9	..	20	..	14	..	273	11
Commerce or Economics	98	9	223	12	37	2	12	..	..	..	17	1	387	24
Education	1	..	26	..	7	..	..	..	4	..	..	..	38	..
Science	222	63	172	27	86	26	103	18	65	13	47	5	695	152
Medicine	254	67	141	21	56	7	19	5	3	..	..	..	473	100
Engineering ..	216	..	67	..	63	..	57	..	45	..	10	..	458	..
Agriculture ..	38	5	34	2	8	2	11	..	9	..	..	..	100	9
Veterinary Science ..	78	5	2	..	8	..	..	..	..	..	..	..	88	5
Dentistry	165	5	61	2	41	5	26	..	..	..	..	..	293	12
Music	..	..	4	16	..	..	1	..	..	..	..	..	5	16
Architecture ..	11	9	36	2	..	..	..	..	..	..	..	..	47	11
Divinity	5	..	..	..	..	..	..	..	..	..	..	..	5	..
Total	1,563	379	1,164	192	396	73	284	55	220	55	106	19	3,733	773
Diplomas (Post-Graduate)—														
Arts	120	62	69	18	5	1	22	9	7	6	3	2	226	98
Science	..	..	..	2	..	..	..	..	..	..	..	..	..	2
Medicine ..	33	5	9	..	..	..	..	..	..	..	..	..	42	5
Total	153	67	78	20	5	1	22	9	7	6	3	2	268	105
Diplomas (Sub-Graduate)	19	27	51	26	69	34	97	56	..	..	6	3	242	146
Certificates	..	..	..	..	69	10	..	..	..	..	..	..	69	10

9. **The Australian National University.**—By the Australian National University Act No. 22 of 1946 (assented to 1st August, 1946, proclaimed to commence on 7th February, 1947) as amended by Acts Nos. 21 and 56 of 1947, provision was made for the establishment and incorporation of a University in the Australian Capital Territory. The University is governed by a Council consisting of two representatives elected by each House of Parliament, five nominated by the Governor-General, six elected by Convocation, three elected by the teaching staff and three co-opted members. The Vice-Chancellor is an *ex officio* member of the Council.

The University is required by the Act to provide facilities for post-graduate research and may establish research schools including :—

(*a*) A School of Medical Research to be known as " The John Curtin School of Medical Research " ; (*b*) the Research School of Physical Sciences ; (*c*) the Research School of Social Sciences ; and (*d*) the Research School of Pacific Studies.

It may also provide facilities for University education generally, for the incorporation in the University of the Canberra University College and for specialist training for officers of the Public Service. The Council has decided to concentrate initially on the establishment of the Research Schools and the training of research workers.

Prior to 1st July, 1951, when the permanent Council took office, the University was governed by an Interim Council appointed by the Governor-General.

The Chancellor of the University is Viscount Bruce of Melbourne, the Vice-Chancellor of the University is Sir Douglas Berry Copland and the Registrar Mr. R. A. Hohnen.

The senior academic body of the University is the Board of Graduate Studies which consists, in general, of the Directors of Research Schools and Professors. The Board assists the Council by tendering advice on all questions affecting education, learning and research in the University.

The Act provides that after a period of five years from 1st July, 1946 (prior to which the Commonwealth Treasurer granted such funds not exceeding £325,000 per annum as were necessary to meet the expenses of the University) the University is to receive an annual grant of £325,000. In addition, grants for capital works and services have been made in the Parliamentary Estimates.

The establishment and development of the Research Schools have progressed well, and a number of senior appointments to the academic staff have been made. Professor M. L. E. Oliphant, F.R.S., has taken up duty as Director of the Research School of Physical Sciences. Sir Howard Florey, F.R.S., acts as Adviser to the Council on the development of the John Curtin School of Medical Research. Professorial appointments so far made are :—

The John Curtin School of Medical Research—

Professors A. H. Ennor (Biochemistry), A. Albert (Medical Chemistry), F. J. Fenner (Microbiology), J. C. Eccles, F.R.S. (Physiology).

The Research School of Physical Sciences—

Professors E. W. Titterton (Nuclear Physics), J. C. Jaeger (Geophysics), Honorary Professor R. v. d. R. Woolley (Astronomy).

The Research School of Social Sciences—

Professors G. Sawer (Law), T. W. Swan (Economics), P. A. Moran (Statistics), P. H. Partridge (Social Philosophy).

The Research School of Pacific Studies—

Professors W. R. Crocker (International Relations), S. F. Nadel (Anthropology and Sociology), J. W. Davidson (Pacific History), O. H. K. Spate (Geography).

The Librarian is Mr. A. L. G. McDonald.

Each department of the Research Schools accepts a small number of graduate research students of first class calibre, the general minimum entrance requirement being a Master's degree or its equivalent in a University of senior standing. Each student is assigned to a supervisor and pursues a course of research under his direction.

Subject to certain conditions the following degrees may be awarded by the University :—Master of Arts (M.A.), Master of Science (M.Sc.), Doctor of Philosophy (Ph.D.), Doctor of Letters (Litt.D.), Doctor of Science (D.Sc.), Doctor of Laws (LL.D.).

Up to the present time the University has awarded some 65 Research Scholarships to enable younger graduates to obtain further research training in fields of interest to the Research Schools of the University.

An area of 204 acres of land at Acton, Canberra, has been granted to the University and construction is proceeding there on :—

University House—a residential college for single members of the University staff and student body (providing individual living quarters and intended to serve as the centre of the community life of the University) which is expected to be fully in use towards the end of 1953 ;

a building for the Research School of Physical Sciences, expected to be completed in 1952 ;

preparation of the site and construction of ancillary buildings for the John Curtin School of Medical Research.

Buildings formerly occupied by the Canberra Community Hospital remain on the University site and are being used as offices and laboratories for the academic and technical staffs, and to accommodate the Library. For the time being the Department of Medical Chemistry is located in the buildings of the Wellcome Foundation, London ; the Department of Experimental Pathology is at the Oxford University ; while the Department of Biochemistry at the Commonwealth Serum Laboratories, and the Department of Microbiology in the Walter and Eliza Hall Institute, are in Melbourne. It is expected that the departments of the John Curtin School of Medical Research, with the exceptions of the Departments of Medical Chemistry and Experimental Pathology, will be in operation in Canberra towards the end of 1952.

Details of staff and financial operations of the Australian National University for the year 1950 were :—

Staff—(i) Teaching and Research : The John Curtin School of Medical Research—Three professors, two fellows, two research fellows and three research assistants ; The Research School of Physical Sciences—Three professors, five research fellows and a research assistant ; The Research School of Pacific Studies—Three professors, two readers and three research fellows ; The Research School of Social Sciences—Two professors, two readers, one senior research fellow, and a research assistant. (ii) Library, fifteen. (iii) Central Administration, 31. (iv) Departmental typists, nine. (v) Laboratories, sixteen. Total, 104.

Research Scholarships—These numbered 57 and all the holders were working abroad.

Library—Number of volumes, 39,000, and pamphlets, 1,300.

Receipts—Commonwealth Government Grant, £226,000 ; interest, donations, etc., £1,317. Total, £227,317.

Expenditure—(i) Administration, £32,835. (ii) Teaching departments, £137,373. (iii) Library, £42,280. (iv) Maintenance of Premises, £4,733. (v) Special Grants, £4,199. (vi) Scholarships, £46,151. Total, £267,571.

Capital Works and Services—The expenditure from grants provided by the Commonwealth Government for capital works and services was £289,183.

10. **Canberra University College.**—The main functions of the Canberra University College, created in 1930 by an Ordinance of the Australian Capital Territory, are to establish courses of lectures for degrees in co-operation with the University of Melbourne, and to conduct a School of Diplomatic Studies for the training of diplomatic officers of the Department of External Affairs.

The University of Melbourne recognizes the instruction given at the College, examines students and grants degrees. The curriculum is that of the University of Melbourne and academic staff is appointed by the College with the approval of that University.

The Canberra and Melbourne lecturers work very closely together and in some subjects the Canberra lecturers act as first or second examiners. The arrangement with the University of Melbourne is regarded as temporary only and it is expected that the College will eventually be associated with the Australian National University, although this is unlikely to take place until that University is firmly established as a post-graduate centre.

The Council of the College consists of nine members appointed by the Governor-General, and a member of the academic staff of the College co-opted by the Council.

The College is financed by an annual grant from the Commonwealth Government, which in the year 1950 amounted to £34,200, plus £4,190 fees, etc., received from students.

During 1950 there were 331 students enrolled at the College. The enrolments were distributed as follows :—(*a*) Melbourne University Courses—Arts 76, Economics and Commerce 138, Law 16, and single subjects 89 ; (*b*) College Courses—School of Diplomatic Studies—First year 7, Second year 9, and Patent Law Courses 8.

In 1950, the full-time academic staff consisted of a principal, who was also the Professor of Economic History, two professors and sixteen lecturers. There were also a number of part-time lecturers.

The College library contains only approximately 9,500 books, but the resources of the National Library and the Government departmental libraries are available. Together, these are considerable, especially in the social sciences.

11. **New England University College.**—The New England University College, comprising a faculty of arts and a faculty of science, is governed by the University of Sydney. It is situated at Armidale, on the northern tablelands of New South Wales. The original university building, standing in 183 acres of land, was presented to the Government of New South Wales by Mr. T. R. Forster in 1937; since that time the University has acquired another 500 acres. The Government of New South Wales has borne the larger share of the expense of the conversion to its present use. Two large buildings providing lecture theatres and laboratories and residential blocks to accommodate 75 students have already been erected. Work on a new library and a students' union building was planned to commence in 1951. Lectures began at the College on 14th March, 1938. Students wishing to proceed to degrees in the Sydney faculties of medicine, veterinary science, agriculture and pharmacy may take the earlier courses at the College.

12. **New South Wales University of Technology.**—Officially incorporated by the Technical Education and New South Wales University of Technology Act of the New South Wales Parliament of April, 1949, the New South Wales University of Technology was established to meet the need of providing facilities for training and research in the fields of Applied Science and Technology and to ensure a more adequate supply of highly skilled scientists and technologists to the expanding industries of Australia. The history of the University dates from the 8th July, 1947, when the New South Wales Government approved the establishment of a Developmental Council to bring the University into being, and to establish its earliest degree courses.

Under the guidance of the Developmental Council the first four degree courses in Civil, Electrical, Mechanical and Mining Engineering were established and commenced in March, 1948. To these were added in the following year degree courses in Applied Chemistry and Chemical Engineering.

In determining the structure of these courses the Developmental Council approved two basic principles which were later to be confirmed as essentials in all undergraduate courses at the University, namely the inclusion of the Humanities and the requirement of a specified period of practical training as integral parts of each course.

The University is governed by a Council consisting of not more than thirty members, representing parliament, industry and commerce, the trade unions, technical education, professional bodies, the University of Sydney and the teaching staffs and the graduate and undergraduate members of the University of Technology. The President of the Council is Mr. Wallace C. Wurth, C.M.G., LL.B., Chairman of the New South Wales Public Service Board.

The Director, who is also a member of the Council of the University, is Mr. A. Denning, B.Sc., Dip.Ed., A.S.T.C. Mr. G. L. Macauley, B.Ec, is the Registrar.

The objects of the University are :—

(a) to provide facilities for higher specialized instruction and advanced training in the various branches of technology and science in their application to industry and commerce ; and

(b) to aid, by research and other suitable means, the advancement, development and practical application of science to industry and commerce.

The Council may provide courses in applied science, engineering technology, commerce, industrial organization and such related courses as it deems fit and may, after examination, confer the several degrees of Bachelor, Master and Doctor, and such other degrees and such certificates in the nature of degrees or otherwise as it thinks fit.

Further, the Council is empowered to establish and maintain branches, departments or colleges of the University at Newcastle, Wollongong, Broken Hill and elsewhere in the State. The first of such colleges was officially opened at Newcastle on 3rd December, 1951.

Since the inaugural meeting of the Council of the University on 6th July, 1949, further degree courses have been added, namely Architecture in 1950 and Wool Technology and Applied Physics in 1951.

By mutual agreement of the Council of the University and of the State Technical Education Advisory Council in March, 1951, the following Diploma Courses are also administered by the University of Technology :—Aeronautical Engineering, Architecture, Building, Chemical Engineering, Chemistry, Civil Engineering, Electrical Engineering, Food Technology, Leather Chemistry, Mechanical Engineering, Metallurgy, Mining Engineering, Naval Architecture, Optometry, Physics, Production Engineering, Quantity Surveying, Radio Engineering, Science and Secondary Metallurgy.

The course for the Bachelor's degree is of four years in each case, except in the cases of Architecture (six years) and Chemical Engineering (five years). The Diploma courses generally are of five stages of one year each, and for the Diploma student desirous of taking a degree certain conversion courses are available, by means of which he is enabled at an appropriate stage to transfer and enrol as a candidate for the Bachelor's degree.

The Council is empowered to carry out special investigations into any technological or scientific matter on request, and in respect of any such investigation may charge appropriate fees.

Benefactions and grants made to the University for the furtherance of its research activities include :—

Nuffield Bequest—Lord Nuffield on 25th February, 1950, presented the University, on behalf of the Nuffield Foundation, a grant of £25,000 sterling over a period of ten years to establish the Nuffield Research Chair in Mechanical Engineering.

Commonwealth Grant—The Commonwealth Government granted £10,000 to aid the University's programme of research during 1950.

Grant by J. I. Carroll and Electricity Meter and Allied Industries—In June, 1951, a grant of £10,000 was made to the University by J. I. Carroll and Electricity Meter and Allied Industries for the purpose of equipping a research laboratory for investigations into the properties of materials used in the electrical engineering industry. A special section of the School of Applied Physics is being adapted at present for this laboratory to be known as the J. I. Carroll Research Laboratory.

Staff. The academic appointments are as follows :—Applied science : six professors, fourteen senior lecturers and 50 lecturers. Engineering : two professors, three associate professors, twelve senior lecturers and 40 lecturers. Architecture : one professor, one senior lecturer and ten lecturers. Humanities : one professor and three acting lecturers.

Library. The Library of the Sydney Technical College is available to members of the New South Wales University of Technology. The number of bound volumes in the collection in 1951 was 38,000 : pamphlets numbered 3,000 and current technical and scientific journals, 1,200.

Buildings and Sites. Pending the erection of its own buildings and the acquisition of equipment, arrangements have been made for the New South Wales University of Technology to have at its disposal the resources of the Department of Technical Education of New South Wales, including staff, lecture rooms, drawing offices and laboratories. This arrangement made it possible for the University's degree courses to commence from the year of its establishment.

The erection of the first University building is proceeding on an area of land at Kensington specially reserved for University purposes. Accommodation to be provided in this building for the various departments of the University will be supplemented by the early completion of permanent single-story buildings to be used mainly for laboratories.

In the meantime, the planning and ultimate development of the University site at Kensington have been considered. The location and size of further permanent buildings are being determined to meet future instructional, laboratory and research requirements, and the provision of recreational areas and playing fields.

13. **Adult Education.**—(i) *New South Wales. University Department of Tutorial Classes.* In 1914 the University Senate established a Department of Tutorial Classes to provide classes and study groups along the lines of similar work in England. The Department was to be supervised by a Joint Committee of the Senate, on which representation was provided for the Workers' Educational Association, and the Secretary of which was the Director of Tutorial Classes.

This pattern has been adhered to, but the Department's work has expanded greatly. It now has, in addition to the Director, a full-time academic staff of nine, and administrative and typing staff. It has establishments at Newcastle and Armidale as well as Sydney. Its work consists of the following :—

(*a*) *Tutorial Classes.* Each year the Department conducts tutorial classes in a variety of subjects, grouped under the broad headings of Social, Political and Economic Studies ; History and International Affairs ; Psychology ; Philosophy ; Literature and Drama ; Foreign Languages ; Child Study ; Music and Art. Most of the classes in these subjects are organized by the Workers' Educational Association, and the Department supplies tutors from its full-time and part-time staff. In New England, however, the Department organizes its own classes. Classes range from 9 to 28 lectures, and some go on from first to second and sometimes fourth year. In 1950 the Department conducted 113 classes, with a total enrolment of 3,183.

(*b*) *Discussion Groups.* Since 1938 the Department has conducted a Discussion Group scheme, designed to provide country people, in particular, with opportunities for group study of the same types of subjects as are studied in its tutorial classes. Groups of five or more people are formed to discuss written lectures with the help of a corresponding tutor. In 1950, 136 groups were operating, taking in all 196 courses. Total enrolments were 2,125. This compares with nine groups and 114 enrolments in this scheme's first year of operation, 1938.

(*c*) *Kits.* In 1946 the Department embarked on a new venture for groups of people who were interested in activities such as play reading and performance, writing, public speaking, painting and music-making, rather than discussion. A number of " Kits " has been devised to provide programmes for such activities. In 1946, 16 groups were formed with a total enrolment of 179 ; by 1950 these figures had grown to 66 groups and 990 enrolments.

It will thus be seen that the Department enrolled 6,298 students for continuous work in classes and groups in 1950.

Finance for the Department's activities comes from a University appropriation (£10,000 in 1950); from the Adult Education Expansion Grant, distributed on the advice of the Adult Education Advisory Board by the New South Wales Government (the Department's share in 1950 being £11,756); and, to a small extent, from Discussion and Kit group fees. The fees for the Department's tutorial classes, except in New England, are allotted to the Workers' Educational Association for organizing purposes.

A library service is provided to all students in classes and groups by the Adult Education Section of the Public Library of New South Wales, a special section which is financed from the Adult Education Expansion Grant referred to above.

In November, 1951, the Department arranged to take over, as from the end of the year, the publication of the *Current Affairs Bulletin*. Commencing publication in 1942 for the Services, this periodical was re-started as a Service and civilian bulletin in 1947 by the Commonwealth Office of Education, edited from the Department of Tutorial Classes. Commonwealth staff economies in 1951 resulted in the University of Sydney's undertaking, with the assistance of a Commonwealth Government grant, to continue the publication as a part of the work of the Department of Tutorial Classes. Annual subscriptions in 1951 totalled £50,000.

(ii) *Victoria*. In 1947 the Victorian Government established the Council of Adult Education, and the University's part in adult education perceptibly diminished. The grant to the University Extension Board, which had been £5,900, was reduced to £1,000, and the Board was replaced by the University Extension Committee.

Its chief functions are to arrange and conduct public lectures, designed mostly to be of interest to members of the graduate body; to conduct lectures for school pupils at matriculation level, both in Melbourne and at country centres; to arrange special courses for professional training institutions, such as physiotherapists, optometrists, and speech and occupational therapists; and to stimulate interest in Australian literature by conducting lectures.

(iii) *Queensland*. The Adult Education service in Queensland has developed steadily, and in 1949 a total of 79,512 attendances were recorded at 2,550 meetings held in Brisbane and 55 country centres. Regular students included 2,300 at the Brisbane centre and 9,000 in the country. Courses most in demand were English Literature, English Expression, Psychology, Appreciation of Music and Art, Biology, Home Handicrafts and Photography. In smaller centres a number of groups and study circles have been formed. There were 40 of these operating in 1949, and lectures were also given by the permanent staff to 13 groups, comprising factory employees and youth organizations.

All Adult Education Board's services were provided free to the public, the total expenditure for the year being £24,000.

(iv) *South Australia*. Since 1917 the University of Adelaide, through the Joint Committee (with the Workers' Educational Association) for Tutorial Classes, has provided each year in the metropolitan area series of tutorial classes, lecture classes and study circles on a wide range of subjects of cultural and current interest for people who have no intention of proceeding to a degree or diploma and are unable to attend the ordinary University courses. The fee is nominal, and the enrolment for these classes in 1951 was 1,720. The Joint Committee extends its activities into the larger country centres by sending art exhibitions and plays on tour, lending boxes of books and arranging lectures and film screenings.

The University also arranges each year a number of free public lectures by members of the staff. Nine such lectures were given in 1951.

(v) *Western Australia*. In Western Australia the Extension Services of the University are handled by the Adult Education Board, the staff of which consists of a part-time Director and eleven full-time officers.

The objective and the revised policy of the Board in recent years has been defined in the following terms :—" To provide men and women of varying educational attainments in country districts as well as in the metropolitan area with facilities for the constructive use of leisure by use of head or hands and in such a way as to stimulate in the individual a sense of citizenship and to encourage community activities among groups ".

Examples of the application of this policy in 1951 and preceding years include :—

Music Recitals—Music Recitals are given in the metropolitan area and in numerous country towns. Teams of two to three artists or larger ensembles now give these performances of carefully graded programmes of classical music with simple commentary based on earlier experimental work with troops in the Australian Army. Total attendances at the Board's musical activities in metropolitan and country districts averaged over 20,000 in the two years 1949 and 1950.

Country Drama and Ballet—Following on the experimental work of the Board during 1948 and 1949, 1951 has seen a vastly increased activity in the field of drama and ballet in country areas. A professional team of ballet dancers was engaged and a tour was arranged embracing 23 towns, covering 3,000 miles. The company travelled by chartered bus with complete equipment, giving in effect a performance of the same standard as would have been the case in a capital city. In the field of drama, the Board has arranged two major productions involving a considerable cast and complete scenery. The companies visited fourteen towns and reported large attendances. Following on the tours of ballet and drama, there is evidence of a growing demand for these types of activities.

Summer School—A substantial broadening of the pre-war Summer School now brings to Perth for 13 days a cross-section of the Western Australian community both in terms of occupation and location. In January, 1950, 120 men and women were in residence in a hostel adjacent to the University grounds which is used to house students during the University term. The open air theatre at Somerville Auditorium, in which a new stage has been erected and put into use this year, has now become the centre of Perth summer entertainments. The Australian Broadcasting Commission is presenting on the average five open-air concerts, while the Board itself is showing films and presenting dramatic productions as well as ballet performances.

Metropolitan Lecture Classes—Two series of Metropolitan Lecture Classes, each of ten meetings, are conducted each year. The average annual attendance at these classes totalled 800 in post-war years. With a few suburban exceptions, classes are held in the Adult Education Board rooms in Perth. The scheme was extended to Fremantle in September, 1951.

Box Discussion Group Scheme—The pre-war Box Discussion Group, which has been functioning in very reduced form in post-war years, is being revised and extended for use in country districts in 1952.

(vi) *Tasmania*. In Tasmania the University Extension Board which had previously controlled the work of providing extra-mural tuition was replaced in 1919 by a Committee for Tutorial Classes. This Committee ceased activities in 1940 and classes are not at present organized through the University.

14. **Workers' Educational Associations.**—In 1913, Workers' Educational Associations were formed in all the States of Australia, and later in New Zealand. The movement has for its object the bringing of the University into closer relationship with the masses of the people, and providing for the higher education of the workers in civic and cultural subjects.

In Victoria the Association has been superseded by the Council for Adult Education, a statutory body appointed by the Government. A Statutory Board has also been appointed in Queensland, but the Association still carries on as a purely voluntary organization. Direct grants are made by the Governments of New South Wales, South Australia and Tasmania. The particulars of grants for classes and discussion groups organized by the Association and serviced by their respective State Universities in 1950 were as follows :—New South Wales, £21,756, 113 tutorial classes, 136 discussion groups and 66 Kit groups; South Australia, £5,000, 31 tutorial classes and extension lectures at country centres.

Direct grants amounting to £6,865 were made to the Association in New South Wales for both organizing work and a teaching service. The teaching service in 1950 included 17 classes, 2 summer schools (each of 10 days), 24 week-end schools, 11 short courses of public lectures, and 127 lectures to various organizations including W.E.A. clubs. In South Australia the Association receives a grant of £240 for general organizing purposes. In Tasmania the Association received a grant of £1,000 from the Adult Education Board, 119 lectures were organized in 1950, mostly in short series from 3 to 13. The Association's primary interest has been in subjects related to social change such as Industrial History, Economics, Political Science and Sociology. In recent years, however, there has been a substantial increase in the number of classes studying Psychology, History, Literature, Music, Drama and Popular Science.

§ 7. The Commonwealth Office of Education.

1. **Establishment.**—Although, as has been explained elsewhere, education is primarily a concern of the State Governments, the activities of the Commonwealth Government in other directions inevitably brought it into the field of education at a number of points. It thus became necessary to create a permanent Commonwealth authority capable of providing the Government and others with reliable expert advice on the many educational problems that arise. To fulfil this need the Commonwealth Office of Education was established in 1945.

For administrative purposes the Office is attached to the Prime Minister's Department and at present is accommodated in Sydney with small branch offices in each of the capital cities. Under the Prime Minister, the control of the Office rests with the Director whose appointment is direct from the Governor-General in Council. By the Education Act, the Director is also *ex officio* Chairman of the Universities Commission. The administrative staff of the Universities Commission is housed with the Office of Education and shares its facilities. The special work of the Universities Commission is dealt with in the next section of this chapter.

2. **Functions.**—By the Education Act 1945 the functions of the Office of Education are defined as follows :—" (*a*) to advise the Minister on matters relating to education ; (*b*) to establish and maintain a liaison, on matters relating to education, with other countries and the States ; (*c*) to arrange consultation between Commonwealth authorities concerned with matters relating to education ; (*d*) to undertake research relating to education ; (*e*) to provide statistics and information relating to education required by any Commonwealth authority ; and (*f*) to advise the Minister concerning the grant of financial assistance to the States and to other authorities for educational purposes, and shall include such other functions in relation to education as are assigned to it by the Minister ".

3. **Activities.**—Thus the Commonwealth Office of Education advises the Commonwealth Government and its various Departments on educational matters relative to the States and oversea countries. It provides a very useful channel for negotiations between State Departments of Education and the Commonwealth Government ; it organizes consultations between education authorities generally.

Information about recent important developments in education is collected continually from many sources within Australia as well as from countries overseas and is disseminated to State education authorities and others in a number of ways, one of which is the distribution of a bi-monthly publication " Education News ".

Research into educational problems arising out of its official commitments is one of the important activities of the Office. In addition, close attention is being given to special fields of education such as school broadcasting, visual aids to education, youth education and the education of handicapped children.

The Office of Education is a Commonwealth authority with which oversea countries may deal on educational questions concerning Australia as a whole. Close contact in international education is maintained through a representative of the Office on the staff of Australia House in London. An important post-war development in this international sphere is that of the United Nations Educational, Scientific and Cultural Organization. The responsibility for implementing the constitution of UNESCO in Australia, and for advising the Government on such matters, rests with the Office of Education. To further the aims of UNESCO twelve National Co-operating Bodies have been set up together with a Co-ordinating Committee. The Office of Education acts as the secretariat of these bodies. The Office participates in the administration of the schemes of assistance to South-East Asia. These include administration of the Fellowship scheme, participation in the British Commonwealth Technical Co-operation Scheme and supervision of the expenditure of the educational supply grant of £30,000 voted by the Commonwealth Government for Asian countries.

An educational programme for immigrants reaching Australia from displaced persons' camps in Europe has been organized by the Office of Education. Instruction involving practice in using the English language and help in understanding Australian ways begins in the pre-embarkation centres in Europe and continues through to the continuation classes and correspondence courses provided for migrants already in employment in Australia.

During 1950, schools were opened in the Northern Territory for the education of aboriginal children. These schools are staffed and administered by the Office of Education on behalf of the Department of the Interior. Teachers for these schools, in addition to their previous training and experience, received a special course in Native Education before entering on duty. Special primers are being devised for use with aboriginal children and books and equipment are suited to their particular needs.

A substantial part of the work of the Office is concerned with fostering the development in Australia of general educational and cultural activities. A series of publications for use as youth and adult education material has been commenced. A fortnightly *Current Affairs Bulletin* is provided at bulk rates to discussion groups and other bodies. Other pamphlets are also produced from time to time.

§ 8. The Universities Commission.

1. **General.**—The Universities Commission is a Commonwealth instrumentality which was set up at the beginning of 1943 under National Security (Universities Commission) Regulations primarily to achieve the following objects :—(*a*) To advise the Commonwealth Government on questions of man-power insofar as they relate to the training of university students ; (*b*) to arrange for the training of adequate numbers of the graduates for all kinds of national service and to attract able students to the University for such training ; and (*c*) to administer the scheme of financial assistance.

From the commencement of the 1939–45 War the Commonwealth Government had recognized the vital necessity of a continuing flow of properly trained graduates from certain of the faculties of the Universities, particularly from the six faculties of Medicine, Dentistry, Engineering, Science, Veterinary Science and Agriculture. The policy of the Government was to reserve students to commence and continue their studies in these faculties. In 1943 reservation was extended to cover the faculties of Arts, Economics, Law and Architecture.

With the passing of the Education Act 1945 the Universities Commission became associated with the Commonwealth Office of Education. Its functions are set out in Section 14 of Part 3 of the Act which is quoted below :—

> " 14. The functions of the Commission shall, subject to the regulations and any directions of the Minister, be—(*a*) to arrange, as prescribed, for the training in Universities or similar institutions, for the purpose of facilitating their re-establishment, of persons who are discharged members of the Forces within the meaning of the Re-establishment and Employment Act 1945 ; (*b*) in prescribed cases or classes of cases, to assist other persons to obtain training in Universities or similar institutions ; (*c*) to provide, as prescribed, financial assistance to students at Universities and approved institutions ; and (*d*) to advise the Minister with respect to such matters relating to university training and associated matters as are referred by the Minister to the Commission for advice."

With cessation of hostilities, the Commission was no longer called upon to administer the scheme of reservation but added to its functions that of administering training under the Commonwealth Reconstruction Training Scheme insofar as it applies to Universities and similar institutions.

2. **Financial Assistance.**—(i) *General.* At the commencement of 1943, in order to make the best possible use of university facilities, the Commonwealth Government adopted, through the Universities Commission, the policy of endeavouring to attract able students to the Universities. To this end a scheme of financial assistance was introduced. Under this scheme assistance was available (subject to a means test) to selected full-time students undertaking certain approved courses. In general, these were courses leading to a primary degree in any Australian University. Details of the courses approved and of the scale of assistance payable under the scheme are shown on pp. 251–2 of Official Year Book No. 38.

(ii) *Commonwealth Scholarship Scheme* The Financial Assistance Scheme was replaced by the Commonwealth Scholarship Scheme which came into operation on 1st January, 1951. The aims of the Scholarship Scheme are to lessen inequality of educational opportunity at the tertiary level and to ensure a flow of trained professional personnel from Universities and institutions of similar standing in Australia. The Scheme will absorb the Financial Assistance Scheme and will provide 3,000 scholarships annually for competition by boys and girls who have completed a normal secondary school course. A special feature is the provision for two per cent. of the 3,000 scholarships available each year to be awarded to students of mature age and these scholarships will be known as Mature Age Scholarships. The 3,000 scholarships will be divided amongst the States on a population basis and will be awarded entirely on merit, in general on the results of the examination qualifying for matriculation in the State concerned. The courses approved include all first degree courses at Universities ; certain undergraduate diploma courses at Universities ; Technical College and School of Mines diploma courses at approved standards and certain other professional courses. These include part-time as well as full-time courses. A scholarship will entitle the holder to payment of all compulsory fees irrespective of the means of his parents. A scholar who undertakes an approved full-time course on a full-time basis may apply for a living allowance which is payable subject to a means test. The maximum allowances are £149 10s. per annum for a student living with his parents and £214 10s. per annum for a student not living with his parents. These maximum allowances are payable when the adjusted family income of the student and his parents does not exceed £400. The adjusted family income is ascertained by taking the full income of the student and each of his parents for the financial year immediately preceding the year in which a scholarship is desired and by deducting therefrom £100 for the first dependent child (other than the applicant) under 16 years of age, and £50 for each other dependent child under 16 years of age. The maximum allowances are reduced at the rate of £3 for every £10 by which the adjusted family income exceeds £400.

The maximum living allowance payable to students awarded Mature Age Scholarships will be £214 10s. per annum in all cases and in addition. where the student is married, an allowance will be payable of £1 4s. per week for his wife, and 9s. per week for the first dependent child under 16 years of age. These allowances will be payable subject to a special means test, which will be based on the current income of the student, and will not take into account the income of the student's parents.

(iii) *Number of Students Assisted.* The following table shows the number of students assisted in the various faculties in each University in 1950 :—

NUMBER OF STUDENTS ASSISTED IN EACH FACULTY, 1950.

Course.	Sydney and Armidale.	Melbourne.	Queensland.	Adelaide.	Western Australia.	Tasmania.	Total.
Agriculture	16	15	1	7	15	..	54
Architecture	..	..	..	..	5	..	5
Arts	10	8	2	..	..	..	20
Dentistry	94	24	13	14	35	9	189
Economics or Commerce	48	21	12	16	8	..	105
Education	4	9	5	..	..	1	19
Engineering	(a) 83	30	(b) 47	35	54	4	253
Law	16	11	2	8	2	1	40
Medicine	173	95	(c) 68	92	3	1	432
Science	103	34	17	34	68	10	266
Social Studies	8	14	..	4	..	..	26
Veterinary Science	23	1	4	1	..	..	29
Music	..	10	..	..	..	..	10
Total	578	272	171	211	190	26	1,448

(a) Includes 1 at New South Wales University of Technology, Sydney. (b) Includes 12 Applied Science. (c) Includes 4 Medical Science.

The number of students assisted in Technical Colleges in 1950 was 131.

3. Commonwealth Reconstruction Training Scheme.—(i) *General.* A general description of the Scheme is given in § 11.

(ii) *Number of University and University-Type Trainees who have Completed Courses.* The following table shows the number of full-time trainees who have completed various University-type courses in the several States and Canberra.

RECONSTRUCTION TRAINEES WHO HAVE COMPLETED FULL-TIME UNIVERSITY-TYPE COURSES (INCLUDING REFRESHER COURSES) UP TO 30th JUNE, 1950.

Course.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Total.
Agriculture	35	51	4	9	9	..	108
Architecture	26	11	1	3	..	..	41
Arts	297	307	62	28	82	11	787
Dentistry	195	66	77	1	6	..	345
Economics or Commerce	69	272	17	39	4	7	408
Education	137	102	1	..	5	1	246
Engineering	210	106	66	64	51	8	505
Forestry	..	10	..	..	..	..	(a) 32
Law	247	197	60	36	78	15	633
Librarianship	18	3	..	..	..	..	21
Medicine	272	245	39	70	10	1	637
Music	54	55	1	9	6	1	126
Nursing	539	537	181	147	122	60	(b) 1,589
Pharmacy	31	94	..	13	..	..	138
Physical Education	37	23	1	4	..	..	65
Physiotherapy	104	77	9	6	..	..	196
Public Service Refresher	61	66	..	..	..	..	127
Science	177	191	63	61	51	12	555
Social Studies	52	18	..	28	..	..	98
Teaching	881	706	417	97	380	69	2,550
Theology	181	142	35	62	16	6	442
Veterinary Science	62	..	1	..	..	..	63
Welfare Officer	..	20	..	..	..	..	20
Other	59	104	5	7	7	..	182
Total	3,744	3,403	1,040	684	827	191	9,914

(a) Includes 22 at Canberra. (b) Includes 3 at Canberra.

In addition, up to 30th June, 1950, 4,546 trainees had completed part-time courses.

(iii) *Reconstruction Trainees Pursuing University-type Courses at 30th June,* 1950. The following table shows the number of full-time trainees in training in various University-type courses at 30th June, 1950.

RECONSTRUCTION FULL-TIME TRAINEES IN TRAINING IN UNIVERSITY-TYPE COURSES AS AT 30th JUNE, 1950.

Course.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Total.
Agriculture	38	44	16	10	21	..	129
Architecture	125	44	17	10	..	..	196
Arts	269	140	26	17	42	8	502
Dentistry	216	127	64	33	21	..	461
Economics or Commerce ..	71	66	33	9	..	8	187
Education	72	27	..	1	4	..	104
Engineering	247	142	63	68	52	24	596
Forestry	3	1	..	..	..	..	(a) 29
Law	258	166	35	30	37	18	544
Medicine	435	296	112	133	2	2	980
Music	18	20	..	5	..	1	44
Nursing	169	111	74	28	47	13	(b) 443
Occupational Therapy ..	7	8	..	..	..	..	15
Pharmacy	112	87	..	19	..	..	218
Physical Education ..	15	4	..	2	..	..	21
Physiotherapy	25	4	8	13	..	..	50
Science	134	62	49	40	35	8	328
Social Studies	14	23	..	1	..	..	38
Surveying	..	..	12	..	3	..	15
Teaching	89	109	4	36	97	14	349
Theology	85	67	9	25	1	1	188
Veterinary Science ..	86	3	13	..	..	..	102
Other	9	23	..	1	1	..	34
Total	2,497	1,574	535	481	363	97	5,573

(*a*) Includes 25 at Canberra. (*b*) Includes 1 at Canberra.

In addition, at 30th June, 1950, there were 4,661 trainees in training in part-time courses.

(iv) *University Facilities.* With the influx of students under the Commonwealth Reconstruction Scheme immediate provision had to be made for the alteration and extension of existing University buildings and for the erection of new ones. Additional equipment also had to be supplied.

The Commonwealth Government offered to provide finance on the following terms and each State and University accepted these terms :—

"(*a*) That the Commonwealth meet the cost in the first instance of erecting essential additional buildings and plant required for Reconstruction Training at Universities ;

(*b*) In the case of temporary buildings or plant of a temporary nature, the assets to remain the property of the Commonwealth and to be disposed of as necessary after the need for their use is ended ;

(*c*) Where the buildings or plant are of a permanent nature the Commonwealth to meet the cost of erection in the first instance so as to ensure expedition on the distinct understanding that the buildings and plant will be taken over by the University on a basis to be determined by agreement between the Commonwealth and State and the University having regard to the permanent value of the buildings and plant to the University ; and

(*d*) The Commonwealth would bear the cost of special internal structural alterations ".

The following table shows the amount of Commonwealth moneys allocated to finance buildings at the Universities :—

University.	Permanent Buildings.	Permanent Alterations.	Temporary Buildings.	Total.
	£	£	£	£
Sydney	257,429	12,945	54,989	325,363
Melbourne	191,427	2,144	26,837	220,408
Queensland (Brisbane)	..	..	4,322	4,322
Adelaide	259,754	..	..	259,754
Western Australia (Perth)	87,298	..	23,572	110,870
Tasmania (Hobart)	11,531	1,500	31,352	44,383
New England University College ..	39,180	..	..	39,180
Total	846,619	16,589	141,072	1,004,280

For equipment the following amounts have been allocated :—

University.	Permanent Equipment.	Temporary Equipment.	Gift.	Total.
	£	£	£	£
Sydney	..	..	40,000	40,000
Melbourne	98,015	3,525	..	101,540
Queensland (Brisbane)	109,318	15,271	..	124,589
Adelaide	97,556	7,628	..	105,184
Western Australia (Perth)	42,786	3,513	..	46,299
Tasmania (Hobart)	19,766	..	..	19,766
Total	367,441	29,937	40,000	437,378

The Commonwealth Government agreed to pay the Universities the full cost of teaching all Reconstruction Trainees. The Universities Commission therefore pays each University a subsidy as running costs in addition to fees.

In 1950 the Commission made fee payments to Universities for Reconstruction Trainees amounting to £184,684, and in addition paid subsidies amounting to £283,715.

§ 9. Technical Education.

1 **General.**—Provision has been made in all States for many forms of technical education, and the rapid expansion of manufacturing industries in recent years is increasing the demand for technically trained personnel, while the technical training conducted by the Department of Labour and National Service and under the Commonwealth Reconstruction Training Scheme has been in operation for some years. (*See* §§ 10 and 11 following.)

In preceding issues of the Official Year Book an outline was given of the origin and development of technical education in each State (*see* No. 22, pp. 447–51), but considerations of space preclude the inclusion of more up-to-date information.

2. **Schools, Teachers and Students.**—The numbers of schools, teachers and enrolments of individual students during 1949 are given in the following table :—

TECHNICAL EDUCATION : SCHOOLS, TEACHERS AND ENROLMENTS, 1949.

State.	Schools or Colleges.	Teachers.			Individual Students Enrolled.	
		Full-time.	Part-time.	Total.	Male.	Female.
New South Wales	38	1,010	1,755	2,765	48,624	16,333
Victoria(*a*)	34	1,161	1,054	2,215	40,927	12,256
Queensland	12	111	264	375	10,746	3,911
South Australia ..	25	(*b*)	(*b*)	627	9,700	7,531
Western Australia ..	12	(*b*)	(*b*)	339	7,695	2,718
Tasmania	9	35	174	209	2,777	2,072
Total 1949 ..	130	(*b*)	(*b*)	6,530	120,469	44,821
1948 ..	125	(*b*)	(*b*)	6,819	119,765	42,316

(*a*) Includes junior enrolments, 10,029 males and 1,659 females, as teaching staff and expenditure cover both senior and junior sections. (*b*) Not available.

The numbers of individual scholars enrolled during the years 1939 and 1945 to 1949 are given in the table following. In order to make the figures comparable, enrolments at Junior Technical Schools are omitted from the Victorian figures.

TECHNICAL EDUCATION : INDIVIDUAL STUDENTS.

State.	1939.	1945.	1946.	1947.	1948.	1949.
New South Wales ..	37,264	42,767	49,952	59,300	61,883	64,957
Victoria	28,844	33,905	41,942	42,040	42,183	41,495
Queensland	6,397	10,049	11,912	12,342	13,533	14,657
South Australia	9,721	14,178	16,175	16,352	17,291	17,231
Western Australia ..	5,673	6,991	9,750	10,647	11,066	10,413
Tasmania	1,316	2,951	4,207	4,201	4,526	4,849
Total	89,215	110,841	133,938	144,882	150,482	153,602

3. **Expenditure.**—The expenditure on technical education in each State for 1949 is shown below :—

TECHNICAL EDUCATION : EXPENDITURE, 1949.

(Including Loan Fund Expenditure.)

(£.)

State.	Salaries and maintenance.	Equipment.	Buildings.	Total Expenditure.	Receipts—Fees, etc.	Net Expenditure.
New South Wales ..	1,296,850	180,177	283,327	1,761,056	442,521	1,318,535
Victoria(*a*)	1,104,676	47,889	212,551	1,470,987	220,196	..
Queensland	176,922	58,552	30,919	266,393	30,131	236,262
South Australia ..	201,603	7,804	28,701	239,221	43,652	195,569
Western Australia ..	194,282	28,431	23,347	247,209	17,178	230,031
Tasmania	72,156	1,652	20,603	96,465	569	95,896
Total 1949 ..	3,046,489	324,505	599,448	4,081,331	754,247	
1948 ..	2,521,319	233,230	386,103	3,235,129	669,219	..

(*a*) Includes the expenditure on Junior Technical Schools.

Fees and other receipts are paid into Consolidated Revenue in all States except Victoria, where they are retained and spent by the Technical School Councils. The expenditure on buildings is largely financed from loan moneys, the sums provided from this source in 1949 being (the expenditure in 1948 is shown in brackets):—New South Wales, £229,807 (£139,698); Victoria, £190,050 (£130,156); Queensland, £24,328 (£11,327); South Australia, £20,135 (£3,976); Western Australia, £12,117 (£17,408); and Tasmania, £18,441 (£4,261).

The expenditure on maintenance for technical education in Australia in 1949 amounted to 8s. 9d. per head of the mean population, as compared with £3 per head expended on maintenance for primary and secondary education.

§ 10. Commonwealth War-time Technical Training Scheme.

1. **Origin of the Scheme.**—The Commonwealth Technical Training Scheme was originated during the 1939–45 War to provide for the training of civilians and Armed Services personnel for the production of aircraft and munitions and to meet the demand of the Armed Services for skilled technicians.

2. **Training.**—During the period of operation of the Scheme—from 18th December, 1939 to 29th April, 1949—instruction was given in 78 different types of courses in 60 Technical Colleges throughout Australia, 119,717 persons completing training. The figures for each State and service were given on p. 257 of Official Year Book No. 38.

§ 11. Commonwealth Reconstruction Training Scheme.

1. **Object of the Scheme.**—The object of the Commonwealth Reconstruction Training Scheme is to provide training to enable ex-service men and women and certain special non-service personnel to become re-established in suitable civilian occupations.

2. **Closing Date.**—The latest date for acceptance of applications for training under the Commonwealth Reconstruction Training Scheme was 30th June, 1950.

3. **Types of Training.**—The Scheme provided three types of training—(*a*) University-type (professional); (*b*) Technical-type (professional or vocational); and (*c*) Rural training.

Professional training follows normal lines at a university or similar institution. Vocational training includes most types of trade training given at technical colleges or schools. Members selected for vocational training usually receive approximately six month's basic training. On reaching an assessed proficiency of 40 per cent., they are placed in subsidized employment and are paid the full adult wage or determination for the trade concerned, the employer being reimbursed in the form of a wage subsidy according to the trainees' lack of proficiency. Proficiency is reviewed regularly and the subsidy adjusted accordingly.

4. **Allowances.**—Full-time trainees receive allowances ranging from £4 10s. per week for a single man to £6 10s. per week for a married man with dependants. In addition, all tuition fees are paid and allowances provided for fares, books and instruments. Trainees may claim a special allowance if they are required to live away from home.

5. **Part-time Training.**—Tuition fees and expenses incidental to tuition (such as books), up to a limit of £60, are payable in respect of members accepted for part-time training.

6. **Organization and Administration.**—The Scheme is administered by the Repatriation Commission through the Central Reconstruction Training Committee, which has the functions of general planning, organization and direction. This Committee comprises representatives of the Repatriation Commission, Universities Commission, Department of Labour and National Service, and three members appointed by the Minister and drawn from organizations of employers, employees and ex-servicemen.

7. **Number Trained.**—The Scheme commenced to operate in a limited way in March, 1944, and between that date and 31st May, 1951, 334,269 ex-service men and women were accepted for training. The position as at 31st May, 1951 was as follows :—

COMMONWEALTH RECONSTRUCTION SCHEME : NUMBER TRAINED AND IN TRAINING, 31st MAY, 1951.

Particulars.	University-type Training.		Technical-type Training.		Rural Training (Full-time).	Total.
	Full-time.	Part-time.	Full-time.	Part-time.		
Accepted	24,939	19,086	91,253	195,985	3,006	334,269
Withdrawn before commencement	3,137	2,349	26,768	31,420	815	64,489
Awaiting commencement ..	74	141	199	..	13	427
Commenced	21,728	16,596	64,286	164,565	2,178	269,353
Withdrawn after commencement	6,246	6,743	22,724	98,905	525	135,143
Completed	12,177	4,983	33,757	41,948	1,583	94,448
In training	3,305	4,870	7,805	23,712	70	39,762

The number of withdrawals prior to commencement of training was largely owing to members lodging applications for training on discharge from the Forces, but later securing employment or business opportunities for which they were suited without training. Withdrawals from training after commencement of courses were due to a number of reasons, including sickness, failure in examinations and re-enlistment in the Forces ; but many trainees, especially in the building trades, have been able, without formally completing their training, to follow the trade by engaging in sub-contract construction work or by going into partnerships with tradesmen. Of the part-time trainees who have discontinued courses, a large proportion are members who overstated their training requirements in the first instance, and who might more appropriately be regarded as having completed the training which they have since considered necessary for their re-establishment in civilian life.

§ 12. Libraries.

1. **General.**—The Munn-Pitt report of 1935 greatly stimulated interest in libraries and librarianship throughout Australia. This is seen in the rapid development of libraries in all States, all of which, except Western Australia, have now passed legislation to increase library services, and in the establishment in 1937 of the Australian Institute of Librarians to improve the standard of librarianship. This body was reconstituted in 1949 as the Library Association of Australia, its functions now including the promotion and improvement of libraries and library services. The Association conducts annual examinations for which students are prepared by courses of instruction in all States. Formal library schools exist in the National Library, Canberra, and the Public Libraries at Sydney and Melbourne.

2. **Commonwealth.**—(i) *Commonwealth National Library.* This library was created as the Commonwealth Parliamentary Library in 1901. The library of Congress was chosen in 1903 as the model upon which its collections and services should be developed and it has therefore assembled a great reference collection with special emphasis on Australian material and rendering services on a national basis.

While the provision of a reference service to Members of Parliament and to Government Departments remains a primary responsibility, the National Library now offers research facilities to University institutions in the Australian Capital Territory and to students of Australian history and affairs, publishes basic bibliographies in the field of Australiana and serves as a free public library for residents of the Australian Capital Territory.

In 1950 it contained about 350,000 volumes, together with many tens of thousands of pamphlets, pictures, prints, maps, manuscripts and historical objects, scores of thousands of feet of microfilm, about two million feet of moving picture films and 100,000 cubic feet of archives. It is particularly strong in the social sciences, in its holdings of Government publications, Australiana, and material relating to countries of the Pacific and adjacent regions.

The rapid growth of its Australiana, strengthened by the acquisition of the Petherick collection of 16,500 items in 1911, and the notable collection of Cook manuscripts in 1923, caused the Library Committee in the latter year to adopt the title of "Commonwealth National Library".

It has been enriched by several important gifts, notably the Gregory Mathews collection on Australian Ornithology in 1940, and the Ferguson collection of books, manuscripts and pictures relating to Australia and the South Seas in 1946. The great pictorial collection of Rex Nan Kivell in the same field was received on indefinite loan in 1947.

The National Library's activity in the field of Australiana was substantially advanced when, following the posting of a Liaison Officer to London in 1944, arrangements were concluded to microfilm, in association with the Public Library of New South Wales, original records relating to Australia in the Public Record Office and elsewhere. Acquisition of these microfilms will permit resumption at a later date of the *Historical Records of Australia* of which 34 volumes had been published by 1926.

The operation of the Commonwealth Publications Exchange Agency, established in 1947, brings substantial sets of official publications of oversea countries as well as those of research institutions and learned societies throughout the world. Under the Commonwealth Copyright Act of 1912 the publisher of every book, pamphlet, etc., printed in Australia is required to deposit a copy in the Library.

In 1945, following the death of President Roosevelt, the Government established, as its memorial to him, a Roosevelt wing in the Library, housing a comprehensive and growing collection of material illustrating the growth and activity of the American people.

Following the appointment of the War Archives Committee in 1942, the National Library become an Archival Authority for the war-time records of all Commonwealth Departments and agencies other than the Service Departments, the latter being entrusted to the Australian War Memorial. In 1947 the activity was extended to cover all records created since 1901. Repositories have been established in Canberra, Melbourne, Sydney and Brisbane, and to date over 1,000,000 cubic feet of records have been surveyed, of which about 100,000 cubic feet of records of permanent historical value have been transferred to the custody of the Library.

Following the establishment of the Australian National Film Board in 1945, the Library's existing activity in the collection of Australian historical films was expanded into a central library of documentary and educational films and made the non-theatrical distributing agency in Australia for the Board, on which the Library has been represented since its creation. Films are loaned direct to organizations in Commonwealth Territories and to Commonwealth Departments and agencies, and to State Education Departments and Advisory Committees to supplement their individual resources. An information service is given on new and unusual films, and exchanges are conducted with twelve oversea governments. The film collection contains about 3,000 titles, together with Australian historical films and a great number of film strips.

Training in librarianship for Commonwealth Government Departments and for students from the States has been a function since 1938. A post-graduate library school is conducted in which students are prepared for the examinations of the Library Association of Australia.

The National Library is also responsible for providing and servicing the Australian reference libraries at all Commonwealth Government establishments overseas. These now number 36, those in London and New York being major collections under the direct control of officers of the National Library. The services to Commonwealth Territories began in 1936, when, with the assistance of a Carnegie grant of 7,500 dollars, free library services were established in association with the local Administrations. All of these were interrupted by the 1939–45 War, but have since been re-established on an extended basis in Papua-New Guinea and in the Northern Territory, as well as in Norfolk Island and Nauru. The National Library selects, purchases and catalogues the major part of the book stocks, assists in meeting reference needs, and provides from its staff the Chief Librarian in the Northern Territory. In Papua-New Guinea the central library is at Port Moresby, with regional libraries at Rabaul, Lae and Samarai, and several small branches. Parcels of books, carried free by the postal service, are sent to remote areas.

Since the transfer of the seat of Government to Canberra in 1927, the National Library has been accommodated in more than one building in Canberra. Plans are being drawn for further building on its permanent site to enable a consolidation of its collections and services.

A union catalogue of serials in the social sciences held by Australian libraries has been compiled and the following publications issued :—Historical records of Australia—34 volumes, 12s. 6d. per volume (publication temporarily suspended in 1926) ; Parliamentary Handbook and record of elections—eleven issues, 10s. 6d. per volume ; Annual catalogue of Australian publications—No. 1, 1936 to date, 2s. per volume ; Books published in Australia, a list of books supplied under copyright—January–March, 1946 to date (monthly) ; Select list of representative works dealing with Australia (reprinted from the Official Year Book)—1933 to 1948 (annual) ; Australian books (supersedes Select list)—1939 to date (annual) ; Australia Public Affairs Information Service (subject index to current literature)—July, 1945 to date (monthly) ; Catalogue of 16 mm. films—1950, and supplement 1951, 10s.

(ii) *Patent Office Library.* The library of the Commonwealth Patent Office, Canberra contains over 56,000 volumes. Patent specifications of inventions are received from the principal countries of the world, and a wide range of technical literature and periodicals is available.

(iii) *Other Departmental Libraries.* The following Commonwealth authorities in Canberra have specialized collections in their own fields, and in addition draw largely on the National Library :—Attorney-General's Department, Australian War Memorial, Commonwealth Bureau of Census and Statistics, Commonwealth Forestry and Timber Bureau, Department of Commerce and Agriculture, Department of External Affairs, Department of External Territories, Department of Health, Department of National Development, Department of Trade and Customs, Department of Works and Housing, and News and Information Bureau of the Department of the Interior.

The Department of Labour and National Service has its main library in Melbourne, and branch libraries in Sydney and Adelaide. Other departmental libraries in Melbourne are those of the Department of Air, Department of Defence, Department of Social Services and Postmaster-General's Department. The library of the Commonwealth Office of Education was established in Sydney during 1945.

(iv) *Commonwealth Scientific and Industrial Research Organization.* The head office in East Melbourne maintains a library covering all branches of science except the medical sciences. In addition, each division and section of the Organization has its own library ; together, these form a series of specialist libraries covering such subjects as food preservation, horticulture, fisheries, entomology, botany, agriculture, veterinary science, animal husbandry, building research, dairy products, etc. There are 22 such branches, each with its own staff varying in number from one to sixteen, and also smaller collections under the care of research officers aided by visiting librarians. Ten of the branches are in Victoria, eight in New South Wales, two in South Australia, and one each in the Australian Capital Territory and Queensland.

The Head Office Library maintains a union catalogue of the holdings of all C.S.I.R.O. libraries, and smaller union catalogues are being developed among groups of branch libraries with similar interests.

The collections are particularly strong in the publications of oversea scientific and technical research institutions, with many of which exchange relations exist.

The general public may have access to these materials for reference purposes.

3. States.—(i) *Metropolitan Public Libraries.* In each of the capital cities there is a well-equipped Public Library, the institutions in Melbourne and Sydney especially comparing very favorably with similar institutions elsewhere in the world. The following statement gives the number of volumes in the Public Library of each capital city at 30th June, 1950:—

METROPOLITAN PUBLIC LIBRARIES, 30th JUNE, 1950.

City.	Number of Volumes in— Reference Branch.	Ordinary Lending Branch.	Country Lending Branch.	Total
Canberra(*a*)	350,000	..	(*b*)	**350,000**
Sydney	(*c*) 460,689	(*d*)	122,882	**583,571**
Melbourne	584,622	124,258	32,215	**741,095**
Brisbane	96,887	..	12,262	**109,149**
Adelaide	209,417	27,717	(*e*) 49,100	**286,234**
Perth	183,753	..	(*f*) 6,325	**190,078**
Hobart	43,741	21,214	(*g*) 118,107	**183,062**

(*a*) Includes Parliamentary section. (*b*) Books are lent to libraries or students throughout Australia whenever necessary for research work. (*c*) Includes 150,106 volumes in the Mitchell Library. (*d*) The maintenance and control of the ordinary lending branch of the Public Library at Sydney were transferred in 1908 to the Municipal Council. In 1950, books in this library numbered 112,732. (*e*) Includes 21,110 in the Country Lending Service, 5,691 in Children's Branch and 22,299 in Children's Book Service. (*f*) Includes 3,576 volumes in the School Libraries Branch. (*g*) Includes 82,657 volumes in the Children's Branch.

(ii) *New South Wales.* The Free Library Movement in New South Wales, founded for the establishment of a system of public libraries on the basis suggested in the Munn-Pitt Report of 1935, helped to pave the way for the Library Act 1939, which was fully proclaimed as from 1st January, 1944. The Library Board was fully constituted in 1944, and came into effective operation in September of that year. Ninety-eight local authorities have adopted the Library Act and during 1949–50 spent £133,482 on their libraries from rates, as well as £37,000 received in subsidy. There are 82 libraries, containing 520,820 volumes, being operated by 62 councils.

The Joint Coal Board made grants for library purposes to Councils in coal mining areas, a grant of £5,000 having been made to the City of Greater Wollongong to help establish a mobile library service to mining centres, and a grant of £4,150 to the City of Greater Newcastle to meet part of the cost of establishing a library at Wallsend.

The State Library has been housed since 1942 in a new building, whose reading room provides seating accommodation for 500 persons, and has 50,000 volumes in open access. Within four years, however, the old building had to be reoccupied in part owing to lack of space caused by the Library's extended functions.

New South Wales departmental libraries are staffed by officers seconded from the State Library, which also provides a central book buying and master cataloguing service for departmental libraries, and municipal and shire libraries constituted under the 1939 Act.

In 1943 the Banks Memorial Trust was set up to report on the best use of funds which had accumulated since 1905. The government has approved of a memorial at Kurnell, and of the publication of the Banks Papers.

The State Library has undertaken the management of the libraries of the University Tutorial Class and the Workers' Educational Association.

The Country Circulation Department forwards books on loan to State schools, to Schools of Arts and to individual students. During 1949–50, 67,340 books were lent to small State schools, 31,719 to Schools of Arts and small country libraries, 306 to the Far Western Division, while 26,044 reference works were lent to individual country students.

The Mitchell Library in Sydney of more than 60,000 volumes and pamphlets, and 300 paintings, principally relating to Australasia and the Southern Pacific, and valued at £100,000, was bequeathed to the trustees of the Public Library in 1905 by Mr. D. S. Mitchell, together with an endowment of £70,000. The testator stipulated that the regulations of the British Museum were to be adopted as far as possible, hence the library is the resort of specialists. There are now 150,106 volumes in the library, in addition to valuable manuscripts, collections of Australian postage and fiscal stamps, and various pictures, coins, etc.

In Newcastle, Dr. Roland Pope has given his collection, worth £10,000, which is being housed temporarily at the School of Arts.

Other important libraries in New South Wales are the Australian Museum, 32,933 volumes; Teachers' Colleges, 105,995; Technical Education Branch, 64,998; Public Schools, 864,704; Railways' Institute, 141,343; Road Transport and Tramways Institute, 43,728; Cooper Library of the New South Wales Public School Teachers' Federation, 17,467; and the Library at the National Herbarium, 10,000 volumes. At 30th June, 1950 the Parliamentary Library contained 103,175 volumes.

(iii) *Victoria.* A Library Service Board appointed in 1940 to inquire into existing library services issued its report in November, 1944. This recommended the establishment of a State Libraries Board, and suggested a plan for State financial aid. The Free Library Service Board Act of December, 1946 set up a Free Library Service Board of nine members to assist in the organization and promotion of free library services by municipal and other authorities, to register libraries, recommend the allocation of grants, promote library service in State schools, and to provide advisory services to registered free libraries and associated institutions.

There are now 33 municipalities offering adequate library facilities to approximately 550,000 citizens, that is, about 27 per cent. of the States' population. Nine of these serve 339,600 people in the metropolitan area, and 24 serve 214,000 in the country.

Government expenditure on libraries for the year 1949–50 was £49,400. Of this amount £43,400 was allocated to municipal libraries, £5,500 to 200 country mechanics' institute libraries and £500 to 34 children's libraries.

With the passing of the Public Library Act 1944, the Public Library of Victoria was separated for administrative purposes from the National Gallery and the Museum, and is now controlled by a Board of seven members concerned with the Library only. The Library provides reference services with a collection of some 570,000 volumes, 2,500 current periodicals and 450 current newspapers; lending services to metropolitan borrowers; country lending services to individual readers throughout the State; and travelling library services by a box system to rural and provincial libraries.

The Reference Library reading room, opened in 1913, is capable of seating 320 readers at a time, with an additional 50 readers in a special Art Room. The Library is particularly strong in Australiana, early and fine modern printing, English county records and genealogy, Shakespeariana and the fine arts. Associated with the Reference Library is the Victorian Historical Collection containing 13,000 documents, maps, paintings and other items illustrating the history of the State.

(iv) *Queensland.* Prior to 1945 Queensland's library needs were met by the State Public Library, established in 1902 and administered by the Chief Secretary's Department, and by Schools of Arts or similar libraries in metropolitan and country districts supported by members' subscriptions. The Libraries Act 1943 constituted a Library Board "to attain efficient co-ordination and improvement of the library facilities of the State with the object of placing such facilities on a sound basis for the benefit and educational improvement of the citizens generally throughout the State".

The control and management of the Public Library has been entrusted to the Board, which had built up the book collection to 96,224 volumes in 1948–49, and 109,149 in 1949–50. The Libraries Act Amendment Act of 1949 provides for the deposit in the Public Library of a copy of all books, pamphlets, maps and other printed material published in Queensland.

As a long-range policy, the Board has planned a State-wide and co-ordinated modern library service, but meantime, as an immediate programme, subsidy is granted on a fifty per cent. basis on books, library accommodation and equipment, with an upper limit of £1,000 in respect of the latter.

The Act empowers local authorities to establish library facilities and to take over the management of Schools of Arts when requested to do so by the trustees of the Schools of Arts or when the local authority deems it advisable.

Five Schools of Arts were transferred to local authorities in 1948–49, and nine in 1949–50, making a total of 23. The Brisbane City Council has established seven libraries, of which four have separate children's collections, and hopes to increase the number to 28. The number of local bodies subsidized was 87 in 1948–49, and 68 in 1949–50. The Board's policy is to subsidize not more than one local body in any area in providing library facilities.

A country extension service for people residing outside the metropolitan area is now operating on a limited scale. Its book collection numbered 7,172 in 1948–49, and 12,262 in 1949–50.

The Oxley Memorial Library was established under the terms of a Declaration of Trust dated 26th August, 1926, from the balance of moneys remaining in the Oxley Centenary Fund. Its object is the promotion of the study of Australian literature, literature relating to Australia and Queensland historical material. The library, housed in the Public Library since 1934, remained under separate administration until 1946, when its assets were transferred to the Library Board. Since that date it has been administered as a department of the Public Library, and the collection kept segregated. It is governed by a committee which has advisory powers only. During the year 1949–50 its holdings in volumes increased from 14,069 to 14,768. A valuable addition in 1950 was the L'Estrange collection of Queensland stamps.

The library of the Parliament of Queensland was established in 1860. It contained in 1950 approximately 74,000 volumes, consisting of official publications and books devoted largely to history and the social sciences. The cataloguing and reclassification of the library commenced in 1948. An amendment to the Act in 1949 entitles the library to a copy of every book published in Queensland.

(v) *South Australia.* Following the Price Report of 1937, which stressed the need for a free lending service for metropolitan and country readers, and suggested the establishment of a State Libraries Board, the Public Library of South Australia was separated from the Museum and Art Gallery early in 1940 and became a government department, administered by a Principal Librarian and a Libraries Board.

In the Reference department there are about 210,000 volumes and seating for 300 readers. Most of the books may be borrowed, and about 32,000 volumes are lent every year. Over 3,000 periodicals are filed, and the collection of newspapers includes every newspaper printed in South Australia.

The Adelaide Lending department, which lends books to persons living in the metropolitan area, has 29,000 books, 17,000 registered borrowers, and an annual book issue of 232,000 volumes.

In the Country Lending Service there are 44,000 volumes, of which about half are suitable for children. In 1949–50 this service sent out 41,000 volumes to adults and 83,000 to children, including 23,000 volumes lent to schools.

The Research Service specializes in scientific and technical enquiries, and supplements the resources of the Public Library by borrowing from other libraries and by obtaining microfilm copies of material not available locally. It has an extensive collection of trade catalogues. *See also* Children's Library, page 250.

The Institutes Association in 1950 comprised 256 suburban and country libraries with 739,072 volumes.

(vi) *Western Australia.* During 1944 the Government appointed a provisional committee to report on the question of establishing free lending libraries in country centres. The scheme outlined in its report of January, 1945 was accepted, and a permanent Country Free Lending Libraries Committee established. In order to commence a library service for rural areas £1,000 was placed on the estimates for 1945 and 1946, funds being made available on a £1 for £1 basis up to £50. By July, 1945, eight such libraries had been started, and by 1950, 50 libraries were receiving aid under the scheme, which is worked through the Municipalities and Road Boards. In each case the local authority makes its own arrangements for the supervision and lending of books.

In 1945 an Archives Branch was established at the Public Library as a repository for the non-current records of the Government and other historical material relating to Western Australia. Also, the collection of the Western Australia Historical Society is being housed in the Public Library.

An Adult Education Library of 12,000 volumes of general reading and fiction provides for readers in metropolitan and country areas. The library is conducted by the Adult Education Board and requires no deposit from its readers. The Board pays outward freight for country readers.

(vii) *Tasmania.* Library service in Tasmania has expanded rapidly during the past few years. Under the Libraries Act 1943 the Tasmanian Library Board was constituted, and the State Library of Tasmania was established on 1st January, 1944. The Board, in addition to administering the State Library head-quarters in Hobart, is responsible for the extension of library services throughout the State and for the control of State aid. Municipalities adopting the Act spend the proceeds of local rates on library premises, salaries and maintenance, and books for permanent retention. State aid is provided in the form of books of a value equal to the amount collected in rates, which are exchanged at intervals. In Launceston State aid is given in cash. The Launceston City Council now contributes approximately £3,079 per annum, and a like amount is received in State aid. Since the library became free under the Act, membership has increased from 1,000 to over 16,500.

Of the 49 municipalities in the State, 34 have adopted the Act and seven libraries have been established with the support of the Hydro-Electric Commission.

The State Library provides lending and reference services for the people of Hobart and operates a reference service for people throughout the State. In addition, it conducts screenings of documentary films, recitals of recorded music, summer schools, lectures, library weeks in country centres, puppetry demonstrations, etc.

The Parliamentary Library works in close collaboration with the State Library, which provides a reference officer to serve members during session, and undertakes to catalogue all new books added to the library as well as supplying recreational reading.

4. **University Libraries.**—The libraries of the Australian Universities provide material not only for the education of graduates and undergraduates, but also for scholars, research workers and practical investigators all over the continent. Much of the material they contain is not available elsewhere, for although in most cases smaller, they are in many directions more highly specialized than the public libraries. They lend to one another and to State and private institutions as well as to individual investigators. Each of them is governed by a librarian, who is responsible as a rule to an executive sub-committee and a committee which is practically co-extensive with the professional staff. In size, the Library of the University of Sydney is the third library in Australia, and the Libraries of the Universities of Adelaide and Melbourne are respectively seventh and eighth. The following table shows the sizes and rates of growth and expenditure of the Australian university libraries; it is impossible to give borrowing statistics, as they differ too widely to be comparable without much explanation.

UNIVERSITY LIBRARIES, 1950.

University.	Volumes.	Accessions during year.	Expenditure.
	No.	No.	£
Sydney	330,886	7,151	21,909
Melbourne	169,049	9,563	33,490
Queensland	103,383	7,383	14,460
Adelaide	157,387	4,610	15,463
Western Australia	95,000	3,688	10,696
Tasmania	74,642	3,171	10,720
New England University College	19,055	1,490	3,705
Canberra University College	9,517	2,132	4,095

The first books were bought for the Library of the University of Sydney as early as 1851 ; only since 1910, however, has it possessed a building of its own. It is named after its principal benefactor, Thomas Fisher, who bequeathed to it in 1885 the sum of £30,000. It contains an up-to-date bookstack of glass and steel and a fine reading room in which, since the beginning of 1941, about 18,000 volumes of the collection have been made available on open access shelves. In addition, members of the teaching staff and certain classes of undergraduates are admitted to the bookstacks ; all readers are encouraged to borrow freely. The Library possesses a large number of periodicals, especially scientific, valuable collections of seventeenth-century pamphlets and Elizabethan translations from the classics, and an extensive collection of Australian literature. Besides medical and law branches, there are a number of departmental libraries.

Early in 1854 the University of Melbourne made its first allocation for books, but the Library was housed in temporary quarters for a number of years. In recent years the university authorities have treated the Library generously, and there have been some welcome benefactions, but accommodation is insufficient and a new library building is a pressing need of the University. The W. L. Baillieu Trust has made available the first instalments of a £100,000 gift for building purposes All the books are accessible on open shelves, and though the Library is intended primarily for reference purposes, borrowing, except of text-books and certain valuable volumes, is made as easy as possible. The Library is administered from the centrally situated general library ; there is a large medical branch library specially rich in periodicals, and smaller branch libraries in some of the science departments.

The Library of the University of Queensland, founded in 1911, began with £3,000 worth of books, £2,000 having been raised by public subscription and £1,000 granted by the Government. The main library is now in its own building in the new university, St. Lucia.

The Adelaide University Library bears the title of its original benefactor, Robert Barr Smith, who, with members of this family in and after 1892, gave the University about £50,000 for library purposes. Some 20,000 volumes are shelved in the reading room and are available to the ordinary student. Up-to-date steel bookstacks provide accommodation for about 100,000 volumes. Borrowing facilities are available to all matriculated students, to country students and to graduates. There are medical and law departmental libraries. The medical library has on permanent loan the collection of the Institute of Medical and Veterinary Science, and also incorporates the library of the British Medical Association (South Australian Branch).

In the University of Western Australia the first permanent library staff was not appointed until 1927. Provision of permanent library accommodation was not possible when the university moved to its present site, and space and facilities have consequently been inadequate. Extensions to the temporary quarters were made in 1946. The whole collection, consisting of about 95,000 volumes, is accessible on open shelves, and there are several departmental libraries. A special feature is the use made of student co-operation.

The Library of the University of Tasmania was founded in 1893, but for many years it comprised little more than a collection of text-books. In 1913 a substantial increase of funds was allotted and important gifts were received. In 1919 it was organized for the first time in accordance with modern library practice. A full-time librarian was appointed for the first time at the end of 1945, and the staff has increased from two to ten. The Library is now providing a cataloguing service for the library of the Royal Society of Tasmania.

The New England University College Library was founded in 1938, and bears the name of its first benefactor, Sir William Dixon. At the end of 1950 it contained some 19,055 volumes mainly on open shelves.

The Canberra University College Library was established in 1938. At the end of 1950 it contained 9,517 volumes, which are on open shelves; reference books may be borrowed.

The library of the Australian National University is unique in that it is designed to serve the research staff of a wholly post-graduate institution. It specializes in the fields of the physical and medical sciences, excluding clinical materials. In the social sciences and Pacific studies consideration is given to the holdings of the Commonwealth National Library to avoid unnecessary duplication. The library was established in 1948 and operated in Melbourne until December, 1950, when the main library was transferred to Canberra, the biochemistry and microbiology sections remaining in Melbourne with the respective departments of the university. The collection comprises some 45,000 volumes, and in addition a special collection of 30,000 books in Chinese.

5. **Children's Libraries and School Libraries.**—(i) *General.* A survey conducted early in 1946 revealed that only a small proportion of children was being catered for by adequate library service. The effective use made of the few existing children's libraries is proof that the growing interest in this branch of library work will be well rewarded.

(ii) *New South Wales.* Children's libraries are being developed as departments of municipal and shire libraries. Three formerly independent children's libraries at Mosman, Wollongong and Moss Vale are now departments of municipal and shire libraries and have greatly increased budgets.

From 1937–38, school library work has been fostered by the State Library in co-operation with the Education Department. A "Model School Library" was established, and vacation classes for teacher librarians are held. In 1948 there were 63 district units under the central library scheme. Subsidies paid by the Department during 1949–50 amounted to £2,197.

(iii) *Victoria.* Since 1943–44 children's libraries have shared a grant of £500 between them, the number participating in 1950 being 34.

The Education Department is making provision for libraries in new schools being erected. Where accommodation is available in existing schools, grants of up to £4 for £1 are provided to furnish and equip libraries. In addition, the Government subsidizes the purchase of approved books on the basis of £1 for £1, or £2 for £1, according to the size of the school, to a maximum grant of £60 per annum. In 1948–49 the total government contribution for this purpose was £10,549.

With the assistance of school committees and municipalities, subsidized by the Department, many country districts have established circulating group libraries. Boxes of books are circulated to all schools in the group, changes being made at the commencement of each school term. During 1949, twenty-six such groups were functioning.

Financed by a bequest from the late William Gillies, a scheme of circulating libraries for small schools, particularly in remote areas, has been operating for some years. At present 441 schools benefit from this scheme.

The Department has a Library Services Officer with a small staff to advise and assist schools in the organization of libraries. A number of Education Department teachers have been trained at the Library School of the Public Library of Victoria, and an increasing number of schools have well-equipped library rooms with trained teacher-librarians in charge.

(iv) *Queensland.* The purchase of books in State school libraries in Queensland is financed by school committees and parents' associations, with a subsidy from the Department of Public Instruction on a £1 for £1 basis. The subsidy was suspended from 1931 to 1943.

In 1937 a system of Circulating Supplementary Readers was commenced. Books are graded for age levels and are moved from school to school, sufficient copies of each book for a whole class being sent, and reading being done in school. There are 96,000 such books now in use, the distribution at present being confined to primary schools.

(v) *South Australia.* A Children's Library of 6,000 volumes is used by school classes and individual children living in the metropolitan area. The books are lent to children of 14 years and over, and non-fiction may be borrowed by children of any age.

(vi) *Western Australia.* For schools with more than two teachers, including high schools and technical schools. £1 for £1 subsidy up to £50 is granted each year. New primary schools are provided with a room for a library, while high schools and some technical schools have a teacher acting as librarian.

For schools with one or two teachers there are two services. Through the Small Schools Fixed Library Service reference books up to the value of £12 are supplied annually to be kept permanently in the school. The Charles Hadley Travelling Library provides recreational reading, and operates 250 boxes which can be exchanged every three months through a local school acting as distributing centre for a district. All boxes are returned to head-quarters for repair and renewal at the end of the year. The government grants £250 per annum for this service, and the participating schools contribute the commission received from the Commonwealth Bank for the teachers' services—about £200.

Children in isolated country areas are catered for by books sent out by the State Correspondence Schools Library. The children are kept in touch with the Library by means of radio talks and leaflets issued periodically. There is as yet no general scheme to serve children in the metropolitan area.

The Federation of Police and Citizens Boys' Clubs of Western Australia aims at establishing a system of circulating boxes of books at an estimated cost of £10,000. Books are in circulation to 44 centres, of which 15 are Police Boys' Clubs, 24 State Schools, and 5 Children's Libraries.

Western Australian Children's Book Council Inc. was incorporated in 1948 and receives a government grant to assist its work of interesting local authorities in establishing children's free libraries.

(vii) *Tasmania.* Early in 1945 an appeal fund was opened for the establishment of Lady Clark Memorial Children's Libraries. The fund closed on 30th June, 1947, with an approximate total of £17,000. With its head-quarters at the State Library, in Hobart, it aims to serve all children in Tasmania with books. It works through the municipal authorities; at 30th June, 1950 children's libraries had been established in 46 municipalities, including Hobart, and five special Hydro-electric districts, children's books being provided on a population basis.

Practically all State secondary schools in Tasmania have libraries, with full-time librarians in four of them. The libraries of the Friends' School, Hobart, and the Hobart High School are among the foremost of their kind in Australia.

A Schools' Library Service assists with loans of curriculum books, 30 at a time, and provides advice and guidance in the use of books. The majority of primary schools have libraries; most area schools, in particular, have good ones.

The Education Department sends, each year, selected students or teachers to the Library School in Sydney.

6. **Industrial Libraries.**—Before the war industrial libraries were practically unknown in Australia, but during recent years many manufacturing firms have found it necessary to establish libraries to keep their scientific staffs informed of the latest

technical advances. At present there are seventeen libraries staffed by trained librarians attached to commercial organizations in Sydney, and 38 libraries in government and semi-government departments and scientific institutions. There are some 60 industrial libraries in Victoria, and several in other States.

7. **Microfilms.**—The following libraries supply microfilm or photostat copies of material, usually at a small charge (the letter " P " signifies photostat supplied and "M" microfilm supplied) :—*Australian Capital Territory*—Australian War Memorial (P), Commonwealth National Library (PM) ; *New South Wales*—Metropolitan Water Sewerage and Drainage Board (P), Public Library of New South Wales (M), Standards Association of Australia (P), School of Public Health and Tropical Medicine (M), Fisher Library, University of Sydney (PM) ; *Victoria*—Commonwealth Serum Laboratories (P), Technical Information Section, Munitions Supply Laboratories (PM), Public Library of Victoria (M), Standards Association of Australia (Melbourne Branch) (P), University of Melbourne (PM) ; *Queensland*—Public Library (P) ; *South Australia*—Public Library of South Australia (PM), University of Adelaide (PM), Waite Agricultural Research Institute (P) ; and *Tasmania*—University of Tasmania (PM).

§ 13. Public Museums.

The Australian Museum in Sydney, founded in 1836, is the oldest institution of its kind in Australia. In addition to possessing fine collections of the usual objects found in kindred institutions, the Museum contains a very valuable and complete set of specimens of Australian fauna. The cost of construction of the building to 30th June, 1950 was £86,560 The number of visitors to the institution during 1949–50 was 225,101, and the average attendance on week-days 422, and on Sundays 1,361. The expenditure for 1949–50 amounted to £32,014. A valuable library containing 32,933 volumes is attached to the Museum. Courses of evening popular lectures are delivered and lecturers also visit distant suburbs and country districts, while afternoon lectures for school children are provided. Nature talks are also broadcast by radio. Representative collections illustrative of the natural wealth of the country are to be found in the Agricultural and Forestry Museum and the Mining and Geological Museum. The latter institution prepares collections of specimens to be used as teaching aids to country schools. The " Nicholson " Museum of Antiquities, the " Macleay " Museum of Natural History and the Museum of Normal and Morbid Anatomy attached to the University, and the National Herbarium and Botanical Museum at the Sydney Botanic Gardens, are all accessible to the public. There is a Museum of Applied Arts and Sciences in Sydney with branches in five country centres. Expenditure during the year 1950 was £27,566. Valuable research work is being performed by the scientific staff in connexion with oil and other products of the eucalyptus and the gums, kinos, tanning materials, and other economic products of native vegetation generally.

The National Museum at Melbourne, devoted to natural history, geology and ethnology, is located in the eastern section of the Public Library Building. The National Art Gallery is situated in the same building. The Museum of Applied Science, also housed under the same roof, contained at 30th June, 1949, 23,120 exhibits which cover applied and economic aspects of all branches of science. There is a fine Museum of Botany and Plant Products in the Melbourne Botanic Gardens. In addition to the large collection in the geological museum attached to the Mines Department in Melbourne, well-equipped museums of mining and geological specimens are established in connexion with the Schools of Mines in the chief mining districts.

The Queensland Museum, founded in 1855, comprises exhibited and reference collections of zoology, geology and ethnology. It is entirely maintained by the State Government, and cost of the building was £31,736. Expenditure for the year 1949–50 was £11,225, including loan expenditure of £293. The collections are principally, but not exclusively, Australian ; there is, for example, the excellent series of ethnological material formed by Sir William McGregor in New Guinea. The publication is *Memoirs of the Queensland Museum* which was preceded by the *Annals of the Queensland Museum.* The library is extensive and valuable, and of great assistance to research workers in the State.

The Queensland Geological Survey Museum has branches in Townsville, opened in 1886, and in Brisbane, opened in 1892.

Under the Public Library Act of 1884 the South Australian Institute ceased to exist, and the books contained therein were divided amongst the Museum, Public Library, Art Gallery and the Adelaide Circulating Library. The South Australian Museum has considerable collections of most branches of natural history and was attended by 120,000 visitors in 1949–50. Cost of construction of the Museum building was returned as £65,000. In 1949–50 expenditure was £19,137.

The latest available returns show that the Western Australian Museum and Art Gallery contains altogether 202,000 specimens, of an estimated value of £105,500. The Museum, Art Gallery, and Library are housed in one building, and the visitors to the combined institutions during the year reached 80,000. At the 30th June, 1950, the structure was valued at £65,500.

There are two museums in Tasmania—the Tasmanian Museum at Hobart, and the Victoria Museum and Art Gallery at Launceston—both of which contain valuable collections of botanical, mineral, and miscellaneous products. The Museums received aid from the Government during 1949–50 to the extent of £7,050. The cost of construction in each case is included in that of Art Galleries given below.

§ 14. Public Art Galleries.

The National Art Gallery of New South Wales originated in the Academy of Art founded in 1871. Cost of construction of the present building amounted to about £96,000. At the end of 1949 its contents, which are valued at £261,000, comprised 1,080 oil paintings, 665 water colours, 1,842 black and white, 232 statuary and bronzes, and 1,054 ceramics, works in metal and miscellaneous. Since 1895 loan collections of pictures have been regularly forwarded for exhibition in important country towns.

The National Gallery at Melbourne at 30th June, 1949 contained 2,125 oil paintings, 7,792 objects of statuary, bronzes, ceramics, etc., and 21,887 water colour drawings, engravings and photographs. The Gallery is situated in the same building as the Museum and Public Library, the total cost of construction being £439,000. Cost of purchases during 1948–49 was £24,807 and the total to that date amounted to £717,619. Several munificent bequests have been made to the institution. That of Mr. Alfred Felton, given in 1904, amounts to about £8,000 per annum. In 1913, Mr. John Connell presented his collection of art furniture, silver, pictures, etc., the whole being valued at £10,000. There are provincial art galleries at Ballarat, Bendigo, Geelong, Castlemaine and Warrnambool, and periodically pictures are sent on loan from the National Gallery.

The Queensland National Art Gallery, situated in the Executive Buildings, Brisbane, was founded in 1895, and contains a small, but well chosen collection of pictures. At the end of 1950 there were on view 279 oil paintings, 135 water colours, 243 black and white, and 44 pieces of statuary, together with 158 various prints, mosaics, and miniatures. Exclusive of exhibits on loan, the contents are valued at about £23,500. Visitors during the year averaged 925 on Sundays and 214 on week-days.

The Art Gallery at Adelaide dates from 1880, when the Government expended £2,000 in the purchase of pictures, which were exhibited in the Public Library Building in 1882. The liberality of private citizens caused the gallery rapidly to outgrow the accommodation provided for it in 1889 at the Exhibition Building, and on the receipt of a bequest of £25,000 from the late Sir Thomas Elder, the Government erected the present building, which was opened in April, 1900. The Gallery also received bequests of £16,500 in 1903 from the estate of Dr. Morgan Thomas, and valuable prints and £3,000 in 1907 from Mr. David Murray. In 1935 Mr. Alex Melrose gave £10,000 for the extension of the building. At the 30th June, 1950 there were in the Gallery 1,438 paintings in oil and water colour, 549 drawings and black and white, and 67 items of statuary, the contents being valued at £88,600. The cost of construction of the Art Gallery amounted to £48,000.

The foundation stone of the present Art Gallery at Perth in Western Australia was laid in 1901, and the Public Library, Museum, and Art Gallery are all situated in the one structure. The collection comprises 223 oil paintings, 149 water colours, 371 black and white, 276 statuary, and 1,275 ceramic and other art objects, the whole being valued at £32,500. Cost of construction of the buildings amounted to £10,000.

In Tasmania, the Art Gallery at Hobart was opened in 1887. At June, 1950 the contents consisted of 109 oil paintings, 56 water colours, 7 black and white, 3 statuary, and 521 etchings, engravings, etc. The cost of construction of the building was £4,500. Expenditure in 1949–50 was £6,207.

The Art Gallery at Launceston was erected in 1888 at a cost of £6,000, and opened on the 2nd April, 1891. Only a small proportion of the contents belongs to the gallery, the bulk of the pictures being obtained on loan. At June, 1950 there were on view 49 oil paintings, 21 water colours, 4 black and white, and 3 engravings and miscellaneous exhibits. Expenditure in 1949–50 was £4,402.

§ 15. Scientific Societies.

1. **Royal Societies.**—In previous issues of the Official Year Book an outline was given of the origin and progress of the Royal Society in each State (*see* No. 22, pp. 454–5). The accompanying table contains the latest available statistical information regarding these institutions, the head-quarters of which are in the capital cities.

ROYAL SOCIETIES : PARTICULARS, 1950.

Particulars.	Sydney.	Melbourne.	Brisbane.	Adelaide.	Perth.	Hobart.	Canberra.
Year of foundation	1866	1854	1884	1880	1914	1843	1930
Number of members	369	245	268	172	183	422	60
Vols. of transactions issued ..	83	94	61	72	35	84	..
Number of books in library ..	30,000	19,100	4,000	10,000	4,000	24,393	..
Societies on exchange list ..	420	354	240	185	187	260	..
Income .. .. £	1,678	1,173	364	860	468	692	38
Expenditure .. .. £	2,365	1,490	266	1,077	350	654	38

2. **The Australian and New Zealand Association for the Advancement of Science.**—This Association was founded in 1887. Its head-quarters are at Science House, Gloucester-street, Sydney, and meetings are usually held biennially within the various States and in the Dominion of New Zealand. The last meeting was held in Sydney in August, 1952.

3. **Other Scientific Societies.**—The Linnean Society of New South Wales, with head-quarters in Sydney, was founded in 1874. Sir William Macleay, who died in 1891, during his lifetime and by his will endowed the society to the amount of £67,000, which has been increased by investment to approximately £100,000. The Society maintains a research bacteriologist and offers annually, to graduates of the University of Sydney, three research fellowships in various branches of natural history. Three fellowships were awarded in 1950. The library comprises some 18,000 volumes, valued at about £9,000. Seventy-five volumes of proceedings have been issued, and the Society exchanges with about 250 kindred institutions and Universities throughout the world. The membership at the end of 1950 was 238.

The British Astronomical Society has a branch in Sydney, and in each of the States the British Medical Association has a branch.

In addition to the societies enumerated above, there are various others in each State devoted to branches of scientific investigation.

§ 16. State Expenditure on Education, Science and Art.

The expenditure in each State on education, science and art during the years 1948–49 and 1949–50 is shown in the following table. Owing to the details not being available in all States, the figures exclude officers' pensions and superannuation, pay-roll tax, and interest and sinking fund on capital expended on buildings. The cost of the medical and dental inspection of school children is also excluded, as this service is more appropriately classified under Public Health, etc. :—

STATE EXPENDITURE ON EDUCATION, SCIENCE AND ART.
(£.)

State.	Expenditure from—				Receipts.	Net Expenditure.
	Revenue.	Loan.	Other Funds.	Total.		
			1948–49.			
New South Wales ..	11,424,789	966,986	..	12,391,775	598,306	11,793,469
Victoria	7,240,548	982,320	10,980	8,233,848	(a)164,341	8,069,507
Queensland ..	3,751,406	293,121	200,705	4,245,232	50,953	4,194,279
South Australia ..	2,397,392	293,774	..	2,691,166	64,057	2,627,109
Western Australia ..	2,076,153	223,698	..	2,299,851	125,012	2,174,839
Tasmania	1,131,024	206,036	..	1,337,060	9,587	1,327,473
Total ..	28,021,312	2,965,935	211,685	31,198,932	1,012,256	30,186,676
			1949–50.			
New South Wales ..	13,413,467	1,468,191	..	14,881,658	443,274	14,438,384
Victoria	8,707,522	2,122,332	3,736	10,833,590	(a)112,520	10,721,070
Queensland ..	4,267,601	467,891	231,571	4,967,063	51,024	4,916,039
South Australia ..	2,834,277	412,044	..	3,246,321	66,443	3,179,878
Western Australia ..	2,523,133	328,446	..	2,851,579	110,698	2,740,881
Tasmania	1,358,399	237,375	..	1,595,774	8,378	1,587,396
Total ..	33,104,399	5,036,279	235,307	38,375,985	792,337	37,583,648

(a) In addition, fees in respect of technical education amounting to £224,764 in 1948–49 and £220,196 in 1949–50 were received and spent by the School Councils.

CHAPTER VII.

PUBLIC JUSTICE.

§ 1. Lower (Magistrates') Courts.

1. **General.**—In considering the criminal returns of the various States, due allowance must be made for certain factors, such as the relative powers of the higher and lower courts. In the case of lower courts, the actual number of laws in each State whose breach renders a person liable to fine or imprisonment must be taken into account. Again, the attitude of the magistracy and police towards certain classes of offences is a factor, for in the case of liquor laws or laws connected with vagrancy or gaming, the views of the magistrates, and instructions issued to the police, may be responsible for considerable variations in the numbers. The strength and distribution of the police forces, and the age-constitution and distribution of the population of the States, also influence the results. Due weight should be given also to the prevalence of undetected crime, but information on this point is not available for all States. It may be mentioned that each State has its own separate judicial system, the Commonwealth jurisdiction being confined to the High Court of Australia (largely a Court of Appeal intermediate to the Privy Council although it has also original jurisdiction), the Commonwealth Court of Conciliation and Arbitration and the Federal Court of Bankruptcy. Full particulars regarding the judicial power of the Commonwealth will be found in Chapter III. of the Commonwealth Constitution which appears on page 18 of this issue.

2. **Powers of the Magistrates.**—(i) *New South Wales.* There is no general limit to the powers of the magistrates in regard to offences punished summarily, their authority depending in each case on the statute which creates the offence and gives them jurisdiction. Except in the case of a very few statutes, and excluding cumulative sentences, the power of sentence is limited to six months. Imprisonment in default of fine is regulated by a scale limiting the maximum period according to the sum ordered to be paid, but in no case exceeding twelve months. Actions for debt and damage within certain limits also come within magisterial jurisdiction. In cases of liquidated debts and damages, whether liquidated or unliquidated, the amount is limited to £50 before a court constituted by a stipendiary magistrate. The amount in actions of debt before two or more Justices of the Peace is limited to £30 and in actions of damage to £10, but may extend to £30 with the consent of the defendant. Outside the Metropolitan Area of Sydney and certain other prescribed districts one justice of the peace may hear cases of debt, liquidated or unliquidated, or damage up to £5 and to £30 by consent of parties.

(ii) *Victoria.* The civil jurisdiction of magistrates is restricted to what may be designated ordinary debts, damages for assault, restitution of goods, etc., where the amount in dispute does not exceed £50, and to actions arising out of torts or contracts. No definite limit is fixed to the powers of the magistrates on the criminal side, and for some offences sentences up to two years may be imposed. The proportion of long sentences is, however, comparatively small.

(iii) *Queensland.* Generally speaking, the maximum term of imprisonment which justices can inflict is six months, but in certain exceptional cases, such as offences against sections 233, 344, and 445 of the Criminal Code (betting houses, aggravated assaults, and illegally using animals), sentences of twelve months may be imposed.

There is provision for applying cumulative sentences, but in practice, in general, not more than one sentence is made cumulative on a previous sentence.

Magistrates have no power to deal with habitual offenders, but there are such powers vested in the Supreme Court.

(iv) *South Australia.* In South Australia the power of special magistrates to impose fine and imprisonment is defined by the special act creating the offence and conferring jurisdiction. In the case of minor indictable offences, triable summarily, a maximum penalty of £100 fine or 2 years' imprisonment is fixed by the Justices Act 1921–1947. Magistrates also have power to hear certain civil actions in which the amount claimed is less than £750.

(v) *Western Australia.* The powers of magistrates and justices in regard to offences triable summarily are governed by the act creating the offence and giving them jurisdiction. Imprisonment in default of payment of a fine is regulated by a scale limiting the period according to the amount of the fine but not to exceed six months.

The civil jurisdiction of magistrates and courts is restricted in general to £250, but disputed actions, the subject matter of which exceeds £100, must be tried by a judge. By consent of the parties, any action that might be brought in the Supreme Court may be dealt with in a Local Court. Justices may act in the case of illness or absence of the magistrate.

Magistrates are coroners and justices may be appointed as acting coroners.

Magistrates have appellate jurisdiction under some statutes and in country districts act as Chairmen of the Courts of Session. They may be appointed as Commissioners of the Supreme Court.

On the goldfields, the magistrate is also the warden.

(vi) *Tasmania.* Magistrates may hear and determine in Courts of Petty Sessions all offences other than those punishable on indictment. Stealing and analogous crimes where the property involved does not exceed £10 in value may be dealt with by magistrates unless the defendant objects.

No general limit is fixed in respect of sentences, the statute creating the offence almost invariably laying down the penalty. Where this is not the case, the Contravention of Statutes Act 1889 provides that a fine of £50 may be imposed. Generally speaking, sentences which justices can inflict are limited to six months, although in several cases sentences of up to two years may be imposed. The aggregate term of cumulative sentences cannot exceed two years.

The civil jurisdiction of magistrates is divided into two categories. A Commissioner of the Court of Requests, who must be a legal practitioner, and is invariably a police magistrate, may hear actions for the recovery of debts and damages not exceeding £100. The jurisdiction of these courts may be increased by proclamation to £250, and this has been done in five instances. Courts of General Sessions, constituted by at least two justices, exercise similar powers, but the jurisdiction cannot exceed £50. Only one court has the maximum jurisdiction, the others being limited to £30.

3. **Cases Tried at Magistrates' Courts.**—The total number of arrest and summons cases tried at Magistrates' Courts in each State is given below for 1939 and for the years 1945 to 1949 :—

CASES TRIED AT MAGISTRATES' COURTS.

State or Territory.	1939.	1945.	1946.	1947.	1948.	1949.
New South Wales ..	144,848	141,079	173,311	180,835	198,456	205,817
Victoria	82,858	60,744	64,487	73,990	76,516	80,511
Queensland(*a*) ..	32,501	27,838	33,096	34,664	36,149	40,503
South Australia ..	22,770	(*a*)22,837	(*a*)27,067	(*a*)27,005	(*a*)25,376	(*a*)28,349
Western Australia ..	24,111	19,716	24,831	22,893	26,257	27,373
Tasmania	9,498	6,422	9,390	9,024	9,060	11,713
Northern Territory(*a*)	1,494	349	786	1,102	1,598	1,199
Aust. Cap. Territory ..	284	354	633	893	777	1,018
Total ..	318,370	279,339	333,601	350,406	374,189	396,483

(*a*) Year ended 30th June following.

Investigation of the returns shows that considerable variations in the figures for single States are occasioned by breaches of new Acts, or the more stringent enforcement of the provisions of existing Acts. Any deductions drawn from the total returns as to the increase or decrease of criminality should, therefore, be based upon a careful analysis of the detailed list of offences.

4. **Convictions at Magistrates' Courts.**—The figures given in the previous table include, of course, a number of people who were charged without sufficient reasons, and, statistically, are not of general importance. A classification of convictions of persons who appeared before the lower courts in each State during 1949 is given in the following table :—

CONVICTIONS AT MAGISTRATES' COURTS, 1949.

Class of Offence.	N.S.W.	Vic.	Qld.(*a*)	S.A.(*a*)	W.A.	Tas.	N.T.(*a*)	A.C.T.	Aust.
Against the Person ..	2,551	860	382	233	337	212	80	42	4,697
Against Property ..	10,327	3,810	2,099	1,254	1,980	717	29	103	20,319
Forgery and Offences against the Currency..	105	5	..	1	3	11	3	..	128
Against Good Order ..	100,484	24,503	26,901	7,231	7,081	1,660	804	712	169,376
Other Miscellaneous ..	76,488	43,238	9,309	16,777	15,987	7,606	211	60	169,676
Total	189,955	72,416	38,691	25,496	25,388	10,206	1,127	917	364,196

(*a*) Year ended 30th June following.

The following table shows the number of convictions in 1939 and in each year from 1945 to 1949 :—

CONVICTIONS AT MAGISTRATES' COURTS.

State or Territory.	1939.	1945.	1946.	1947.	1948.	1949.
New South Wales ..	126,353	125,982	157,108	165,472	183,367	189,955
Victoria	72,186	53,101	56,628	66,086	68,243	72,416
Queensland(*a*) ..	28,920	25,417	30,623	31,315	33,469	38,691
South Australia ..	20,429	(*a*)20,585	(*a*)24,491	(*a*)24,164	(*a*)22,834	(*a*)25,496
Western Australia ..	22,539	18,263	23,042	21,095	24,360	25,388
Tasmania	8,722	5,048	7,529	7,312	7,701	10,206
Northern Territory(*a*)	1,394	244	738	1,058	1,516	1,127
Aust. Cap. Territory..	260	308	440	729	714	917
Total ..	280,803	248,948	300,599	317,231	342,204	364,196

(*a*) Year ended 30th June following.

5. **Convictions for Serious Crime at Magistrates' Courts.**—(i) *General.* While the figures given in the preceding table refer to the entire body of convictions, the fact must not be overlooked that they include a large proportion of offences of a technical nature, many of them unwittingly committed, against various Acts of Parliament. Cases of drunkenness and minor breaches of good order, which, if they can be said to come within the category of crime at all, at least do so in a very different sense from some other offences, also help to swell the list. The following table has therefore been prepared for the purpose of showing the convictions at magistrates' courts for what may be regarded as the more serious offences, i.e., against the person and property, either separately or conjointly, and forgery and offences against the currency. Owing to the smallness of the population, the rates for the Northern and the Australian Capital Territories are subject to considerable variation.

(ii) *Number and Rates, Years* 1939 *and* 1945 *to* 1949. The following table shows the number and rates of convictions for serious crime at magistrates' courts for the years 1939 and 1945 to 1949 :—

CONVICTIONS FOR SERIOUS CRIME AT MAGISTRATES' COURTS.

State or Territory.	1939.	1945.	1946.	1947.	1948.	1949.
			NUMBER.			
New South Wales ..	12,724	15,768	14,870	14,626	13,308	12,983
Victoria	5,727	5,211	5,196	5,028	4,964	4,675
Queensland(*a*) ..	2,402	3,090	2,473	2,241	2,434	2,481
South Australia ..	1,224	(*a*) 1,435	(*a*) 1,571	(*a*) 1,579	(*a*) 1,440	(*a*) 1,488
Western Australia ..	2,614	2,401	2,767	2,441	2,578	2,320
Tasmania	959	707	982	937	805	940
Northern Territory(*a*)	44	23	87	99	194	112
Aust. Cap. Territory..	59	115	69	139	129	145
Total ..	25,753	28,750	28,015	27,090	25,852	25,144
			PER 10,000 OF POPULATION.			
New South Wales ..	46.26	54.04	50.48	49.00	43.92	41.69
Victoria	30.48	25.96	25.65	24.49	23.75	21.86
Queensland(*a*) ..	23.52	28.51	22.54	20.14	21.45	21.33
South Australia ..	20.50	(*a*) 22.74	(*a*) 24.53	(*a*) 24.22	(*a*) 21.65	(*a*) 21.66
Western Australia ..	55.63	49.23	56.13	48.52	50.07	43.52
Tasmania	40.15	28.44	38.94	36.35	30.42	34.48
Northern Territory (*a*)	60.58	21.84	81.53	87.53	151.08	78.61
Aust. Cap. Territory..	47.18	76.61	43.44	81.62	67.20	68.43
Total ..	36.91	38.84	37.45	35.68	33.44	31.66

(*a*) Year ended 30th June following.

(iii) *Rate of Convictions,* 1881 *to* 1949. Statistics of convictions reveal a consistent increase in the rate of serious crime from 1925 to 1931, when 37.1 convictions per 10,000 of the population were recorded. Following this comparatively high figure the rate declined to 32.4 in 1933 but increased considerably to 36.9 in 1939. By 1941 the rate had declined to 33.6 but rose in the next two years to 43.2, the highest recorded since 1891, when the average number of convictions was 44.8. Since 1943 it has declined steadily to the rate of 31.7 for 1949. The rate of convictions over a series of years is shown below ; only the more serious offences particularized on the preceding page have been taken into consideration.

RATE OF CONVICTIONS FOR SERIOUS CRIME AT MAGISTRATES' COURTS : AUSTRALIA.

Year	1881.	1891.	1901.	1911.	1921.	1931.	1941.	1949.
Convictions per 10,000 persons	69.3	44.8	29.1	24.6	29.2	37.1	33.6	31.7

6. **Committals to Superior Courts.**—(i) *General.* In a previous paragraph it has been pointed out that comparisons of criminality based on a consideration of the total returns from magistrates' courts are somewhat inadequate, inasmuch as the figures include numbers of cases which are merely technical breaches of laws having in some instances a purely local significance. The committals to higher courts give a better basis of comparison, although even in this connexion allowances must be made for the want of uniformity in jurisdiction. A classification of the offences for which persons appearing in the lower courts were committed to higher courts in each State and Territory for the year 1949 is shown in the following table.

COMMITTALS TO SUPERIOR COURTS, 1949.

Class of Offence.	N.S.W.	Vic.	Qld.(*a*)	S.A.(*a*)	W.A.	Tas.	N.T.(*a*)	A.C.T.	Aust.
Against the Person ..	828	316	193	139	62	39	7	6	1,590
Against Property ..	2,782	1,265	210	195	111	89	4	16	4,672
Forgery and Offences against the Currency ..	41	100	2	17	4	2	1	..	167
Against Good Order ..	35	3	2	31	1	3	..	1	76
Other Miscellaneous ..	90	67	7	11	8	4	..	1	188
Total	3,776	1,751	414	393	186	137	12	24	6,693

(*a*) Year ended 30th June following.

The following table shows the number of committals in 1939 and in each year from 1945 to 1949, with the rate of such committals per 10,000 of population :—

COMMITTALS TO SUPERIOR COURTS.

State or Territory.	1939.	1945.	1946.	1947.	1948.	1949.
			NUMBER.			
New South Wales ..	2,288	3,061	3,566	3,148	3,113	3,776
Victoria	1,777	1,595	1,532	1,783	1,996	1,751
Queensland(*a*)	359	369	400	433	330	414
South Australia	259	(*a*) 352	(*a*) 344	(*a*) 405	(*a*) 326	(*a*) 393
Western Australia ..	129	193	150	172	160	186
Tasmania	82	113	118	100	72	137
Northern Territory(*a*) ..	12	9	6	11	23	12
Australian Capital Territory	18	6	7	22	9	24
Total	4,924	5,698	6,123	6,074	6,029	6,693
			PER 10,000 OF POPULATION.			
New South Wales ..	8.3	10.5	12.1	10.6	10.3	12.1
Victoria	9.5	8.0	7.6	8.7	9.6	8.2
Queensland(*a*)	3.5	3.4	3.7	3.9	2.9	3.6
South Australia	4.3	(*a*) 5.6	(*a*) 5.4	(*a*) 6.2	(*a*) 4.9	(*a*) 5.7
Western Australia ..	2.8	4.0	3.0	3.4	3.1	3.5
Tasmania	3.4	4.6	4.7	3.9	2.7	5.0
Northern Territory(*a*) ..	16.5	8.5	5.6	9.7	17.9	8.4
Australian Capital Territory	14.4	4.0	4.4	12.9	4.7	11.3
Total	7.1	7.7	8.2	8.0	7.8	8.4

(*a*) Year ended 30th June following.

(ii) *Rate of Committals*, 1881 *to* 1949. With occasional variations the rate of committals for serious crime has remained fairly stable during recent years, and, if the comparison be carried back further, the movement in the rate has undergone very little change during the present century. The rate at intervals since 1881 is as follows :—

RATE OF COMMITTALS TO SUPERIOR COURTS : AUSTRALIA.

Year	1881.	1891.	1901.	1911.	1921.	1931.	1941.	1949.
Committals per 10,000 persons	12	11	8	6	7	8	5	8

7. **Drunkenness.**—(i) *Cases and Convictions.* The number of arrest and summons cases of drunkenness and the convictions recorded during the year 1939 and the years 1946 to 1949 are given in the following table :—

DRUNKENNESS : CASES AND CONVICTIONS.

State or Territory.	1939.		1946.		1947.		1948.		1949.	
	Cases.	Convictions.	Cases.	Convictions.	Cases.	Convictions.	Cases.	Convictions.	Cases.	Convictions.
New South Wales	32,472	32,405	62,211	62,120	67,524	67,324	82,900	82,625	78,401	78,206
Victoria ..	11,609	11,421	11,704	11,601	14,952	14,850	16,600	16,416	17,972	17,799
Queensland (*a*) ..	11,202	11,118	16,154	16,042	17,419	17,258	21,242	21,124	24,813	24,767
South Australia ..	2,607	2,597	*a* 4,311	*a* 4,296	*a* 4,932	*a* 4,908	*a* 5,482	*a* 5,458	*a* 5,393	*a* 5,360
Western Australia	2,681	2,658	4,094	4,052	4,292	4,250	4,437	4,367	5,424	5,383
Tasmania ..	411	407	464	450	445	436	519	501	724	705
Northern Terr. (*a*)	686	677	119	113	351	348	804	798	680	674
Aust. Cap. Terr.	114	114	139	136	279	279	427	414	437	435
Total ..	61,782	61,397	99,196	98,810	110,194	109,653	132,411	131,703	133,844	133,329

(*a*) Year ended 30th June following.

Under the heading "drunkenness" are included cases of ordinary drunkenness, drunkenness and disorderliness, and habitual drunkenness.

The number of convictions is, as might naturally be expected, almost identical with the number of cases.

(ii) *Convictions per* 10,000 *of Population.* The convictions for drunkenness per 10,000 of population during 1939 and each of the years from 1945 to 1949 are shown in the following table :—

CONVICTIONS FOR DRUNKENNESS PER 10,000 OF POPULATION.

State or Territory.	1939.	1945.	1946.	1947.	1948.	1949.
New South Wales ..	117.8	149.3	210.9	225.5	272.7	251.2
Victoria	60.8	52.0	57.3	72.3	78.5	83.2
Queensland(*a*)	108.9	107.2	146.2	155.1	186.2	212.9
South Australia	43.5	(*a*) 55.6	(*a*) 67.1	(*a*) 75.2	(*a*) 82.1	(*a*) 78.0
Western Australia ..	56.6	82.0	82.2	84.5	84.8	101.0
Tasmania	17.0	9.0	17.8	16.9	18.9	25.9
Australian Capital Territory	91.2	24.7	85.6	163.8	215.7	205.3
Total	88.0	99.4	132.1	144.4	170.4	167.9

(*a*) Year ended 30th June following.

In the twenties the convictions for drunkenness averaged approximately 100 per 10,000 of population, but the rate fell away considerably during the following years and was only 57.1 in 1931. With the improvement in the social condition of the people following that year, the average rose steadily to 84.1 in 1936. The annual average for the period 1936 to 1939 was 82.7 as compared with 90.8 for the years 1940 to 1945. Following an appreciable increase in the previous year the convictions per 10,000 rose very steeply in 1946 to 132.1 and increased to 170.4 in 1948 but fell to 167.9 in 1949. Figures for the consumption of beer have followed a somewhat similar course. The average consumption of beer per head, which in the twenties was slightly over eleven gallons, fell to 7.32 gallons in 1931–32. It rose to 10.34 in 1936–37, averaged 11.75 gallons for the years 1936–37 to 1939–40 and increased further to an average of 13.23 for the years 1940–41 to 1945–46. Consumption increased in 1945–46, and has continued to do so, except for a slight decline in 1947–48, to reach the 1950–51 figure of 19.73.

The convictions for drunkenness taken by themselves are not altogether a satisfactory test of the relative sobriety of the inhabitants of each State, inasmuch as several important factors must be taken into consideration. The age and sex constitution of the people, for example, are by no means identical in all the States. Another factor is the distribution of the population. Arrest or summons for drunkenness obviously is more likely in the regions densely populated than in those sparsely populated. In addition, allowance must be made for the attitude of the magistracy, the police and the general public in regard to the offence. Due account also must be taken of the effect of legislation dealing with the limitation of hours during which liquor may be sold in hotels.

(iii) *Consumption of Intoxicants.* The following table shows the consumption of spirits, wine and beer per head of population in Australia during the years 1938–39 and 1945–46 to 1950–51 :—

CONSUMPTION OF INTOXICANTS IN AUSTRALIA PER HEAD OF POPULATION.

Year.	Spirits.	Wine.	Beer.
	Proof Gals.	Gals.	Gals.
1938–39	0.22	0.65	12.13
1945–46	0.32	0.96	13.45
1946–47	0.29	1.09	15.90
1947–48	0.31	1.37	15.47
1948–49	0.33	1.38	17.87
1949–50	0.32	1.50	18.23
1950–51	0.38	1.55	19.73

(iv) *Treatment of Drunkenness.* (*a*) *General.* Though the problem of the correct method of dealing with dipsomania is by no means an easy one, it seems fairly clear that the present plan of bringing offenders before magistrates, and subjecting them to the penalty of imprisonment or fine, has little deterrent effect, as the same offenders are constantly reappearing before the courts. During recent years the dangers of moral contamination in this way have been more accurately appreciated, and a system of classification of prisoners has been adopted whereby the petty offender is as far as possible kept from association with those convicted of more serious offences.

(*b*) *Remedial.* Legislation has been passed in each State providing for the commitment of inebriates to special Government institutions. The laws in the various States are as follows :—New South Wales, Inebriates Act 1912 ; Victoria, Inebriates Act 1928 ; Queensland, Inebriate Institutions Act 1896 ; South Australia, Inebriates Act 1908–1934, Convicted Inebriates Act 1913–1934 ; Western Australia, Inebriates Act 1912–1919 ; Tasmania, Inebriates Act 1885, Inebriate Hospitals Act 1892. Curative work was first undertaken by the Government of New South Wales in 1907. In most cases the institutes are connected with the gaols, and, naturally, custodial measures are still a strong feature in their management ; nevertheless, the results of remedial measures have been encouraging.

8. **First Offenders.**—In all the States, statutes dealing with first offenders have been in force for many years. Existing legislation is as follows :—New South Wales, Crimes Act 1900 amended in 1924 and 1929, First Offenders (Women) Act 1919 ; Victoria, Crimes Act 1928 ; Queensland, Criminal Code Acts 1899 to 1945 ; South Australia, Offenders Probation Act 1913–1941 ; Western Australia, Criminal Code Act 1913–1942 ; Tasmania, Probation of Offenders Act 1934. The method of procedure is practically the same in all cases, i.e., with regard to most first offenders convicted of a minor offence the magistrate or judge is empowered to allow the offender to go free on recognizances being entered into for his good behaviour for a certain period. In practice, this humane law has been found to work excellently, very few of those convicted under it having been found to relapse into crime.

9. **Children's Courts.**—Special courts for the trial of juvenile offenders have been established in New South Wales, Victoria, Queensland, Western Australia and Tasmania, while Children's Courts, although not under that title, are provided for by the Maintenance Act 1926–1941 in South Australia. The object of these courts is to avoid, as far as possible, the unpleasant surroundings of the ordinary police court.

§ 2. Superior Courts (Judges' Courts).

1. **Convictions at Superior Courts.**—The following table shows for each State and Territory during 1949, and in Australia as a whole in that and the previous year, the number of convictions at Superior Courts for each of the principal offences.

CONVICTIONS AT SUPERIOR COURTS, 1949.

Offence.	N.S.W. (a)	Vic.	Qld. (a)	S.A.	W.A.	Tas.	N.T. (a)	A.C.T.	Australia. 1949.	Australia. 1948.
I. OFFENCES AGAINST THE PERSON.										
Murder	5	..	5	..	..	..	3	..	13	23
Attempted Murder ..	4	..	3	..	..	..	3	..	10	7
Manslaughter ..	12	3	2	7	7	4	2	..	37	29
Rape	..	..	4	..	3	2	1	..	10	13
Other Offences against Females ..	92	63	39	39	12	12	5	5	267	240
Unnatural Offences ..	95	24	14	16	3	5	1	1	159	189
Abortion and Attempts to Procure	2	..	..	3	..	..	..	..	5	9
Bigamy	46	10	8	2	3	1	..	..	70	112
Suicide, Attempted ..	..	..	..	..	1	4	..	..	5	4
Assault, Aggravated	64	18	22	7	..	1	4	..	116	118
Assault, Common ..	24	7	7	13	6	2	6	4	69	79
Other Offences against the Person ..	3	7	11	3	1	..	..	..	25	41
Total ..	347	132	115	90	36	31	25	10	786	864
II. OFFENCES AGAINST PROPERTY.										
Burglary and Housebreaking ..	574	285	123	29	32	22	3	5	1,073	1,072
Robbery and Stealing from the Person ..	55	29	4	6	8	35	1	..	138	104
Horse-stealing ..	6	..	1	..	..	..	1	..	12	..
Cattle-stealing ..		2	..	..	..	..	..	..		1
Sheep-stealing ..		..	..	..	2	..	..	..		7
Embezzlement and Stealing by Servants	35	7	4	13	2	..	..	..	61	43
Larceny, Other ..	152	104	30	19	19	..	6	..	330	375
Unlawfully using Horses, Cattle and Vehicles ..	15	1	..	..	2	..	..	..	18	14
Receiving	43	31	8	8	..	6	..	..	96	93
Fraud and False Pretences	73	22	16	10	2	6	1	..	130	99
Arson	5	4	1	..	..	..	..	..	10	9
Malicious Damage ..	7	5	1	2	..	..	2	..	17	14
Other Offences against Property ..	6	4	..	1	..	..	..	..	11	31
Total ..	971	494	188	88	67	69	14	5	1,896	1,862
III. FORGERY AND OFFENCES AGAINST THE CURRENCY.										
Forgery and Uttering Forged Instruments	6	17	2	18	2	2	..	..	47	40
Offences in relation to the Currency ..	2	..	1	..	..	..	..	..	3	6
Total ..	8	17	3	18	2	2	..	..	50	46
IV. OFFENCES AGAINST GOOD ORDER. ..	13	1	7	..	1	..	..	..	22	26
V. OTHER MISCELLANEOUS.										
Conspiracy ..	3	3	..	3	3	2	..	..	14	15
Perjury and Subornation	3	6	..	..	1	..	..	..	10	19
Other Offences ..	7	16	..	6	..	5	..	8	42	36
Total ..	13	25	..	9	4	7	..	8	66	70
Grand Total ..	1,352	669	313	205	110	109	39	23	2,820	2,868

(a) Year ended 30th June, 1950.

2. **Convictions at Superior Courts, Years 1939 and 1945 to 1949.**—The number of convictions at superior courts and the rate per 10,000 of population are given below for each of the years 1939 and 1945 to 1949 :—

CONVICTIONS AT SUPERIOR COURTS.

State or Territory.	1939.	1945.	1946.	1947.	1948.	1949.
NUMBER.						
New South Wales(*a*) ..	982	1,178	1,396	1,297	1,369	1,352
Victoria	690	692	712	785	806	669
Queensland(*a*)	214	229	261	270	250	313
South Australia	179	203	231	246	185	205
Western Australia ..	71	99	94	102	107	110
Tasmania	39	73	73	64	58	109
Northern Territory(*a*) ..	11	20	50	48	86	39
Australian Capital Territory	14	4	7	15	7	23
Total	2,200	2,498	2,824	2,827	2,868	2,820
PER 10,000 OF POPULATION.						
New South Wales(*a*) ..	3.6	4.0	4.7	4.3	4.5	4.3
Victoria	3.7	3.5	3.5	3.8	3.9	3.1
Queensland(*a*)	2.1	2.1	2.4	2.4	2.2	2.7
South Australia	3.0	3.2	3.6	3.8	2.8	3.0
Western Australia.. ..	1.5	2.0	1.9	2.0	2.1	2.1
Tasmania	1.6	2.9	2.9	2.5	2.2	4.0
Northern Territory(*a*) ..	15.2	19.0	46.9	42.4	66.9	27.4
Australian Capital Territory	11.2	2.7	4.4	8.8	3.6	10.9
Total	3.2	3.4	3.8	3.7	3.7	3.5

(*a*) Year ended 30th June following.

The rate of convictions per 10,000 of mean population for Australia, which in 1930 stood at 4.0, fell each year thereafter until 1936 when the record low level of 2.3 was reached. It rose during each of the next three years to 3.2 in 1939, and, after falling to 2.8 in 1940, rose in each of the next three years, reaching 3.5 in 1943. Following a fall to 3.3 in 1944, the rate subsequently rose as high as 3.8 (1946), but had fallen to 3.5 by 1949. Owing to the smallness of the population and the particular conditions prevailing there the rates for the Territories naturally show considerable variation.

3. **Habitual Offenders.**—An account of the methods adopted in each State in connexion with habitual offenders is given in the following paragraphs.

(i) *New South Wales.* The Habitual Criminals Act of 1905 gives power to judges to declare as habitual criminals persons who have a certain scheduled number of previous convictions. Action may be taken either on the initiative of the judge in indictable matters, or on the recommendation of a stipendiary magistrate, when the matter becomes a special hearing before a judge. The result of the declaration is that the offender is kept for an indefinite period after the completion of his sentence, and is released only when he is considered to be fit to be at large. During the indeterminate stage of his sentence the conditions of detention are governed by regulations under the Act which are somewhat less restrictive than those under the Prisons Act 1899.

At 31st December, 1951 there were 47 prisoners detained in pursuance of the legislation.

(ii) *Victoria.* The Indeterminate Sentences Act came into force in Victoria in July, 1908, and up to the end of June, 1950, 5,964 individual prisoners had been detained under its provisions. Of the 5,195 who were released on parole or probation, 2,146 were reconvicted or returned, 2,750 had completed probation or not offended again, so far as is known, and 270 were reporting on parole or probation. The report of the Indeterminate Sentences Board indicates that the successful results from all inmates approximates 59 per cent., while the results from the younger delinquents (up to 25 years of age) is over 62 per cent. The Indeterminate Sentences system was brought into operation with the object of more comprehensive control of prisoners, particularly after parole and probation, with the twofold object of the reform of the inmate and protection of society.

Committals to reformatory prison are generally by Supreme Court Judges or Chairmen of General Sessions pursuant to the provisions of Sections 514 and 515 of the Crimes Act and by Special Magistrates of Children's Courts pursuant to the provisions of Section 28 of the Children's Court Act. This latter provision is limited to children between the ages of fifteen and seventeen.

(iii) *Queensland.* Sections 659A to 659I of the Queensland Criminal Code deal with habitual criminals. Only the Supreme Court or a judge thereof may declare a person to be an habitual criminal. An habitual criminal is to be detained in a reformatory prison (Section 659D) and there employed (Section 659F).

Where the Supreme Court or a judge recommends the discharge of an habitual criminal, the Governor may direct his discharge and may order him so long as he remains in Queensland to report at intervals during any period not exceeding two years (Section 659G).

(iv) *South Australia.* The Criminal Law Consolidation Act 1935–1940 provides that persons convicted of a certain number of indictable offences shall be detained, upon further conviction, during the Governor's pleasure. Proof of previous conviction is always relevant to the question of penalty.

(v) *Western Australia.* Under the Criminal Code Amendment Act of 1918, power is given to sentence prisoners to be detained in a reformatory prison during the Governor's pleasure, where such prisoner is deemed to be an habitual criminal, or in other special circumstances where the Court considers such a sentence is fit.

The number under preventative detention on 30th June, 1951, was 20, and the total number dealt with since the passing of the Act was 128.

(vi) *Tasmania.* Since the Indeterminate Sentences Act came into operation in 1922, 55 persons have been confined under its provisions; at present four are in custody, two being re-committals.

Of the 51 released on probation, 13 have been re-committed, two of them on three occasions.

4. **Capital Punishment.**—There were seven executions in Australia during the period 1939 to 1949. One took place in New South Wales (in 1939), three in Victoria (two in 1939 and one in 1942), two in South Australia (one in 1944 and one in 1946) and one in Tasmania (in 1946).

Under the Criminal Code Amendment Act 1922 capital punishment was abolished in Queensland.

In the early days of the history of Australia the penalty of death was attached to a large number of offences, many of which at the present time would be dealt with in the lower or magistrates' court. With the growth of settlement and the general amelioration in social and moral conditions, the list was, however, considerably curtailed, and the existing tendency is practically to restrict death sentences to cases of murder. It may be stated that in cases of rape, which is a capital offence in some of the Australian States, the penalty has been but sparingly inflicted during the last few years. Juries are reputed to be loth to convict on this charge, owing to the uncertainty whether sentence of death will be carried out.

The average annual number of executions in Australia from 1861 to 1880 was 9; from 1881 to 1900, 6; from 1901 to 1910, 4; from 1911 to 1920, 2; from 1921 to 1930, 2; and from 1931 to 1940, 1.

§ 3. Civil Courts.

1. **Lower Courts.**—The total number of plaints entered and the amounts awarded to plaintiffs during the years 1948 and 1949 are shown in the following table. Particulars for earlier years appear in preceding issues of the Official Year Book.

The figures represent the returns from the Small Debts Courts in New South Wales, Petty Session Courts in Victoria, Magistrates' Courts in Queensland, Local Courts of South Australia and Western Australia, Courts of Requests in Tasmania, Courts of Summary Jurisdiction in Northern Territory and Court of Petty Sessions in the Australian Capital Territory.

CIVIL CASES AT LOWER COURTS.

State.		1948.	1949.	State or Territory.		1948.	1949.
N.S.W.—				Tas.—			
Cases ..	No.	26,579	31,362	Cases ..	No.	8,495	10,214
Amount	£	146,525	163,810	Amount	£	34,296	44,217
Victoria—				Nor. Terr.(*a*)—			
Cases ..	No.	34,914	39,490	Cases ..	No.	254	319
Amount	£	261,229	338,606	Amount	£	5,308	(*b*)
Q'land(*a*)—				A.C.T.—			
Cases ..	No.	3,878	4,361	Cases ..	No.	302	172
Amount	£	96,316	99,882	Amount	£	1,513	1,991
S. Aust.—							
Cases ..	No.	12,562	13,894				
Amount	£	103,700	114,860				
W. Aust.—				Total—			
Cases ..	No.	15,623	15,245	Cases ..	No.	102,607	115,057
Amount	£	138,678	103,768	Amount	£	787,565	(*b*)

(*a*) Year ended 30th June following. (*b*) Not available.

2. **Superior Courts.**—The following table shows the transactions on the civil side in the Superior Courts during the years 1948 and 1949. The particulars given below include the number and amount of judgments entered by default or confession, or agreement, and differ from those in issues of the Official Year Book prior to No. 29, which related in most States only to causes actually tried during the year.

The New South Wales returns refer to judgments in the District Courts only, and exclude 1,393 judgments in 1948 and 1,548 judgments in 1949 signed in the Supreme Court, for which the amounts entered are not available.

CIVIL CAUSES AT SUPERIOR COURTS.

State.		1948.	1949.	State or Territory.		1948.	1949.
N.S.W.—				Tas.—			
Causes	No.	4,016	4,784	Causes	No.	284	445
Amount	£	(*b*)	(*b*)	Amount	£	38,021	61,969
Victoria—				Nor. Terr. (*a*)			
Causes	No.	3,202	3,308	Cases	No.	24	14
Amount	£	325,137	387,192	Amount	£	4,572	7,641
Q'land(*c*)—				A.C.T.—			
Causes	No.	827	1,066	Causes	No.	4	7
Amount	£	101,209	104,091	Amount	£	888	1,364
S. Aust.—							
Causes	No.	653	772				
Amount	£	30,195	54,972				
W. Aust.(*a*)—				Total—			
Causes	No.	139	131	Causes	No.	9,149	10,527
Amount	£	65,593	51,667	Amount	£	(*b*)	(*b*)

(*a*) Judgments signed and entered. (*b*) Not available. (*c*) Year ended 30th June following.

3. **Divorces and Judicial Separations.**—(i) *Number of Petitions and Divorces granted.* The following table shows the number of petitions for divorce, nullity of marriage and judicial separation filed in each State during 1950, and the number of divorce and nullity of marriage decrees made absolute and judicial separations granted during the year :—

PETITIONS FOR DIVORCE, ETC., AND DIVORCES, ETC. GRANTED, 1950.

State or Territory.	Petitions for Divorce, Nullity of Marriage and Judicial Separation.			Decrees for Divorce and Nullity made absolute.	Judicial Separations Granted.
	By Husband.	By Wife.	Total.		
New South Wales	1,718	2,221	3,939	3,450	6
Victoria	861	1,017	1,878	1.602	2
Queensland	365	430	795	791	1
South Australia	310	473	783	664	2
Western Australia	328	378	706	724	..
Tasmania	137	146	283	152	..
Northern Territory	6	9	15	6	..
Australian Capital Territory ..	16	14	30	25	..
Total 1950	3,741	4,688	8,429	7,414	11
1949	3,911	4,524	8,435	6,622	8

(ii) *Number of Divorces, etc., granted, Years* 1939 *and* 1946 *to* 1950. The number of divorces and judicial separations in each State and Territory for the year 1939 and the years 1946 to 1950 is shown in the following table. The figures refer, in the case of divorces, to decrees made absolute in each year and include decrees for nullity of marriage.

DIVORCES AND JUDICIAL SEPARATIONS : AUSTRALIA.

State or Territory.	1939.		1946.		1947.		1948.		1949.		1950.	
	Divorces.	Judicial Separations.	Divorces.	Judicial Separations.	Divorces.	Judicial Separations.	Divorces.	Judicial Separations.	Divorces.	Judicial Separations.	Divorces.	Judicial Separations.
N.S.W. ..	1,545	8	2,792	6	3,821	5	3,300	8	2,655	5	3,450	6
Victoria ..	801	4	1,648	3	2,291	3	1,679	2	1,778	2	1,602	2
Queensland ..	*a* 224	..	1,161	1	933	2	724	..	731	1	791	1
S. Australia ..	243	..	659	1	701	3	632	2	592	..	664	2
W. Australia ..	244	..	731	..	814	..	702	..	569	..	724	..
Tasmania ..	80	..	219	..	210	..	185	..	266	..	152	..
Nor. Territory	(*a*) 2	..	4	..	7	..	3	..	12	..	6	..
Aus. Cap. Ter.	6	1	12	1	25	..	18	..	19	..	25	..
Total ..	3,145	13	7,226	12	8,802	13	7,243	12	6,622	8	7,414	11

(*a*) Year ended 30th June following.

(iii) *Average Annual Number of Divorces granted, Years* 1871 *to* 1950. The average annual number of divorces and judicial separations in Australia for decennial periods from 1871 to 1950 were as follows :—

DIVORCES AND JUDICIAL SEPARATIONS: AUSTRALIA.

Year	1871–80.	1881–90.	1891–1900.	1901–10.	1911–20.	1921–30.	1931–40.	1941–50.
Average	29	70	358	399	744	1,699	2,521	6,192

(iv) *Grounds of Decree on which Divorce, etc., granted, Years* 1949 *and* 1950. The grounds on which divorces, including nullity of marriage, were made absolute and judicial separations granted during 1949 and 1950 in each State and Territory are shown in the following tables :—

DIVORCES AND JUDICIAL SEPARATIONS: GROUNDS ON WHICH GRANTED.

Grounds on which Decrees were Granted.	N.S.W.		Vic.		Qld.		S.A.		W.A.		Tas.		N.T.		A.C.T.		Aust.	
	Divorces.	Judicial Separations.	Divorces.	Judicial Separations.	Divorces.	Judicial Separations.	Divorces.	Judicial Separations.	Divorces.	Judicial Separations.	Divorces.	Judicial Separations.	Divorces.	Judicial Separations.	Divorces.	Judicial Separations.	Divorces.	Judicial Separations.
									1949.									
Adultery ..	582	2	424	1	181	..	252	..	221	..	50	..	7	..	3	..	1,720	3
Adultery and Desertion ..	..	..	38	1	3	1	..	..	3	..	..	..	..	..	..	..	44	2
Bigamy ..	11	..	..	..	1	..	1	..	2	..	..	..	..	..	..	..	15	..
Cruelty ..	49	..	..	..	..	..	52	..	1	..	4	..	..	..	..	..	106	..
Cruelty and Drunkenness ..	39	..	12	..	..	..	..	..	3	..	..	..	..	..	1	..	55	..
Drunkenness ..	24	..	10	..	..	..	7	..	..	..	2	..	..	..	..	..	43	..
Desertion ..	1,930	3	1,254	..	534	..	262	..	214	..	209	..	5	..	15	..	4,423	3
Imprisonment for Crime ..	6	..	5	..	..	..	1	..	..	..	..	..	..	..	..	..	12	..
Insanity ..	..	..	13	..	6	..	7	..	1	..	..	..	..	..	..	..	27	..
Maintenance ..	..	..	..	..	..	..	2	..	11	..	..	..	..	..	..	..	13	..
Separation for over 5 years	..	..	..	..	..	..	7	..	112	..	..	..	..	..	..	..	119	..
Other	14	..	22	..	6	..	1	..	1	..	1	..	..	..	..	..	45	..
Total ..	2,655	5	1,778	2	731	1	592	..	569	..	266	..	12	..	19	..	6,622	8
									1950.									
Adultery ..	724	2	357	..	172	1	238	..	261	..	32	..	5	..	3	..	1,792	3
Adultery and Desertion ..	..	..	19	..	3	..	..	..	2	..	1	..	..	..	..	..	25	..
Bigamy ..	21	..	1	..	1	..	..	..	2	..	..	..	..	..	..	..	25	..
Cruelty ..	53	1	4	1	..	..	56	2	..	..	4	..	1	..	1	..	119	4
Cruelty and Drunkenness ..	70	..	11	..	..	..	..	..	2	..	1	..	..	..	1	..	85	..
Drunkenness ..	24	..	3	..	..	..	7	..	2	..	..	..	..	..	..	..	36	..
Desertion ..	2,536	3	1,179	1	603	..	344	..	256	..	113	..	..	..	20	..	5,051	4
Imprisonment for Crime ..	10	..	3	..	..	..	1	..	2	..	..	..	..	..	..	..	16	..
Insanity ..	..	..	13	..	4	..	4	..	7	..	1	..	..	..	..	..	29	..
Maintenance ..	..	..	..	..	..	..	2	..	23	..	..	..	..	..	..	..	25	..
Separation for over 5 years	..	..	..	..	..	..	8	..	165	..	..	..	..	..	..	..	173	..
Other	12	..	12	..	8	..	4	..	2	..	..	..	..	..	..	..	38	..
Total ..	3,450	6	1,602	2	791	1	664	2	724	..	152	..	6	..	25	..	7,414	11

(v) *Ages of Husband and Wife at Time of Divorce,* 1950. The following table shows, in each age group at the time when the divorce decree was made absolute, the number of husbands and wives who were divorced during 1950. In 1950 the incidence of divorce was highest in the vicinity of the group 30 to 34 years.

DIVORCES : AGES OF PARTIES AT TIME OF DIVORCE, AUSTRALIA, 1950.

Ages of Husbands (Years.)	Ages of Wives (Years).											Total Husbands.
	Under 21.	21 to 24.	25 to 29.	30 to 34.	35 to 39.	40 to 44.	45 to 49.	50 to 54.	55 to 59.	60 and over.	Not stated.	
Under 21 ..	2	1	..	..	..	..	..	..	..	..	..	3
21 to 24 ..	19	100	25	4	..	..	..	..	..	..	1	149
25 to 29 ..	10	259	720	117	13	4	..	..	..	..	..	1,123
30 to 34 ..	1	62	665	686	113	14	3	2	..	..	..	1,546
35 to 39 ..	..	19	201	611	574	88	11	4	..	..	1	1,509
40 to 44 ..	..	2	51	185	466	403	62	8	3	1	1	1,182
45 to 49 ..	..	2	12	52	146	306	256	47	9	2	2	834
50 to 54 ..	..	1	3	18	38	81	180	126	27	6	..	480
55 to 59 ..	..	1	1	6	18	22	67	80	60	22	..	277
60 and over ..	..	..	1	1	5	11	29	38	60	88	..	233
Not stated ..	..	..	..	1	1	1	..	..	..	..	19	22
Total Wives	32	447	1,679	1,681	1,374	930	608	305	159	119	24	7,358

NOTE.—Excludes nullity of marriage.

(vi) *Divorces Granted—Duration of Marriage and Issue of Persons Involved.* The following table shows the number of divorce decrees made absolute in 1950, classified according to the legal duration of the marriage (i.e., the period from the date of marriage to the date when the decree nisi was made absolute) and the issue involved. Of the couples divorced in 1950, 36.6 per cent. had no children, 31.9 per cent. had one child, 18.0 per cent. had two children, 7.4 per cent. had three children and 6.1 per cent. had four or more children.

DIVORCES : DURATION OF MARRIAGE AND ISSUE OF PARTIES, AUSTRALIA, 1950.

Duration of Marriage (Years).	Number of Children.													Total Divorces made absolute.	Total children.
	0	1	2	3	4	5	6	7	8	9	10	Over 10	N.S.		
Under 1 year ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1 and under 2 ..	25	1	..	..	..	..	..	..	..	..	..	..	..	26	1
2 „ „ 3 ..	66	14	..	..	..	..	..	..	..	..	..	..	..	80	14
3 „ „ 4 ..	116	45	4	..	..	..	..	..	..	..	..	..	..	165	53
4 „ „ 5 ..	237	105	5	..	..	..	..	..	..	..	..	..	..	347	115
5 „ „ 6 ..	288	188	35	6	..	..	..	..	..	..	..	..	..	517	276
6 „ „ 7 ..	293	184	44	6	1	..	..	..	..	..	..	..	..	528	294
7 „ „ 8 ..	277	215	52	7	2	..	..	..	..	..	..	..	..	553	348
8 „ „ 9 ..	263	230	90	14	1	1	..	..	..	..	..	..	..	599	461
9 „ „ 10 ..	191	199	85	20	6	..	1	..	..	..	..	..	..	502	459
10 „ „ 11 ..	147	173	89	22	9	5	..	..	..	..	..	..	..	445	478
11 „ „ 12 ..	105	139	75	32	4	..	1	..	..	..	..	..	..	356	407
12 „ „ 13 ..	95	104	90	29	15	2	2	..	..	..	..	..	..	337	453
13 „ „ 14 ..	70	96	73	28	18	4	..	..	1	1	..	..	..	291	435
14 „ „ 15 ..	58	78	54	28	12	3	3	..	..	..	..	..	..	236	351
15 „ „ 16 ..	81	67	75	23	12	3	3	1	..	..	..	..	..	265	374
16 „ „ 17 ..	35	72	59	26	7	3	2	..	..	..	1	..	..	205	333
17 „ „ 18 ..	38	54	44	23	11	4	1	1	1	..	..	..	..	177	296
18 „ „ 19 ..	33	48	47	28	8	3	1	1	1	..	..	..	..	170	294
19 „ „ 20 ..	30	37	45	22	9	8	4	2	..	..	..	..	..	157	307
20 „ „ 21 ..	36	44	42	17	11	8	1	3	1	..	..	..	..	163	298
21 to 24 years ..	96	140	143	80	33	16	14	5	4	1	..	..	..	532	1,038
25 to 29 „ ..	61	67	102	81	41	30	11	4	5	..	..	..	..	402	962
30 to 34 „ ..	32	32	46	28	21	6	7	4	2	1	..	..	..	179	417
35 to 39 „ ..	14	10	19	15	15	7	2	3	2	1	1	1	..	90	269
40 to 44 „ ..	7	1	7	4	1	3	2	..	1	..	..	..	..	26	66
45 years and over	2	1	1	2	..	1	1	1	..	..	..	..	..	9	27
Not stated ..	..	..	..	1	..	..	..	..	..	..	..	..	..	1	3
Total Divorces..	2,696	2,344	1,326	542	237	107	56	25	18	4	2	1	..	7,358	..
Total Children..	..	2,344	2,652	1,626	948	535	336	175	144	36	20	13	..	..	8,829

NOTE.—Excludes nullity of marriage.

(vii) *Number of Divorced Persons at Censuses* 1891 *to* 1947. The following table shows the number and proportions of divorced males and females in Australia at each Census from 1891 to 1947 according to their ages. Prior to 1911 no record was made of divorced persons in South Australia, so comparisons cannot be made to extend beyond that date.

DIVORCED PERSONS AT CENSUS DATES: AGE DISTRIBUTION, AUSTRALIA.

Age last Birthday.	Number.						Proportion per 10,000 of the Sex.					
	1891. (a)	1901. (a)	1911.	1921.	1933.	1947.	1891. (a)	1901. (a)	1911.	1921.	1933.	1947.
					MALES.							
Years—												
15–19 ..	..	..	2	11	..	3	..	..	..	..	..	..
20–24 ..	10	21	27	55	73	258	..	1	1	2	3	8
25–29 ..	37	77	137	321	501	1,957	2	5	7	14	18	66
30–34 ..	60	167	286	580	1,100	3,449	4	11	17	26	44	116
35–39 ..	68	262	321	661	1,575	3,900	7	17	21	34	69	137
40–44 ..	41	233	361	592	1,777	3,694	5	19	25	35	77	143
45–49 ..	34	154	407	533	1,614	3,309	5	17	30	37	77	140
50–54 ..	27	131	338	498	1,250	2,755	4	19	31	37	73	133
55–59 ..	28	76	204	425	877	2,327	6	14	28	36	66	117
60–64 ..	16	55	134	281	611	1,572	4	12	26	31	53	99
65–69 ..	5	33	76	155	477	941	2	9	19	28	51	81
70–74 ..	5	14	43	86	270	523	3	5	14	26	41	68
75–79 ..	1	7	12	27	122	233	1	5	6	14	34	46
80–84 ..	..	3	14	7	35	98	..	5	16	7	25	37
85 and over	..	1	6	1	10	33	..	5	17	2	17	28
Age 15 and over ..	332	1,234	2,368	4,233	10,298	25,052	3	10	15	23	42	89
					FEMALES.							
Years—												
15–19 ..	2	2	1	8	6	18	..	..	..	..	..	1
20–24 ..	16	56	71	168	230	1,008	1	3	3	7	8	33
25–29 ..	60	168	239	526	960	3,144	4	11	13	22	37	104
30–34 ..	49	244	332	756	1,565	4,107	5	18	21	34	66	137
35–39 ..	40	287	374	713	1,939	4,239	5	24	26	37	82	154
40–44 ..	26	178	366	621	1,880	3,805	4	19	29	38	83	160
45–49 ..	19	107	319	496	1,598	3,344	4	16	29	37	80	146
50–54 ..	10	52	229	405	1,066	2,858	2	10	27	34	65	131
55–59 ..	4	28	79	280	662	2,174	1	6	14	28	51	110
60–64 ..	1	11	59	217	485	1,401	..	3	13	28	42	85
65–69 ..	..	10	38	70	287	843	..	3	10	14	32	66
70–74 ..	1	5	14	25	136	341	1	3	5	8	21	38
75–79 ..	..	..	16	14	58	157	..	..	10	7	16	26
80–84 ..	..	1	2	2	12	58	..	2	3	2	8	18
85 and over	..	..	1	3	4	19	..	3	..	5	5	11
Age 15 and over ..	228	1,149	2,140	4,304	10,888	27,516	3	10	15	24	46	97

(a) Excludes South Australia.

4. **Bankruptcies.**—Particulars relating to bankruptcy in each State up to the end of 1927 were incorporated under this heading in issues of the Official Year Book prior to No. 23. Under the terms of the Bankruptcy Act 1924–1950 jurisdiction in bankruptcy and insolvency was taken over by the Commonwealth from 1st August, 1928. The Act made provision for the declaration of districts, and each State (except Queensland) and Northern Territory have been declared bankruptcy districts. The bankruptcy district of New South Wales includes the Australian Capital Territory. Queensland has been divided into three districts corresponding to the three Supreme Court districts in that State. Operations under the Act for the year ended 31st July, 1950 are shown in the following table. For the purposes of comparison, the annual averages for periods between the years 1929 and 1948 are appended to the table.

FEDERAL BANKRUPTCY ACT : OPERATIONS, 1949–50.

Particulars.		N.S.W.	Vic.	Qld.	S. Aust.	W. Aust.	Tas.	Nor. Terr.	Australia.
Sequestration Orders and Orders for Administration of Deceased Debtors' Estates	Number ..	140	78	49	24	29	13	..	333
	Liabilities £	257,242	139,743	189,039	30,031	68,628	13,305	..	697,988
	Assets £	125,919	39,152	39,374	24,437	71,360	5,264	..	305,506
Division 5—Compositions, etc., after Bankruptcy	Number ..	1	1	9	2	3	..	..	16
	Amount under 10s.	1	..	3	2	3	..	..	9
	Amount over 10s.	..	1	6	..	..	..	..	7
Compositions without Bankruptcy Part XI.	Number ..	..	4	1	12	11	..	..	28
	Liabilities £	..	85,965	2,473	64,486	23,777	..	..	176,701
	Assets £	..	28,716	2,788	65,425	8,152	..	..	105,081
Deeds under Part XI.	Number ..	..	..	..	7	3	..	..	10
	Liabilities £	..	..	..	50,782	14,309	..	..	65,091
	Assets £	..	..	..	41,780	10,126	..	..	51,906
Deeds of Arrangement, Part XII.	Number ..	18	14	11	..	..	..	..	43
	Liabilities £	53,028	43,959	23,554	..	..	..	..	120,541
	Assets £	50,151	38,745	25,268	..	..	..	..	114,164
Total, 1949–50	Number ..	158	96	61	43	43	13	..	414
	Liabilities £	310,270	269,667	215,066	145,299	106,714	13,305	..	1,060,321
	Assets £	176,070	106,613	67,430	131,642	89,638	5,264	..	576,657
Total, 1948–49	Number ..	143	70	71	49	31	12	..	376
	Liabilities £	236,711	184,778	131,423	88,165	77,170	15,778	..	734,025
	Assets £	131,297	178,425	83,750	59,651	53,532	7,848	..	514,503
Average 5 years ended 1947–48	Number ..	95	51	25	33	16	7	..	227
	Liabilities £	165,066	98,525	27,584	86,491	26,288	3,946	..	407,900
	Assets £	80,963	39,948	22,857	56,634	12,530	1,215	..	214,147
Average 5 years ended 1942–43	Number ..	434	296	134	357	81	45	..	1,347
	Liabilties £	664,121	297,840	219,588	1,000,376	236,178	28,293	406	2,446,802
	Assets £	429,462	127,977	152,602	730,482	166,561	14,475	182	1,621,741
Average 5 years ended 1937–38	Number ..	496	383	183	544	108	58	..	1,772
	Liabilities £	707,075	627,960	259,921	1,566,821	228,623	56,944	932	3,448,276
	Assets £	477,547	277,004	194,174	1,076,347	187,933	33,688	795	2,247,488
Average 5 years ended 1932–33	Number ..	959	689	305	637	344	95	..	3,029
	Liabilities £	1,920,030	1,419,402	605,789	1,043,637	871,520	116,014	260	5,976,652
	Assets £	1,552,489	1,006,120	493,108	796,478	1,215,686	82,227	80	5,146,188

It is pointed out that the procedure in certain States has been influenced largely by the procedure in force prior to the passing of the Commonwealth Act, and that, therefore, no particular significance attaches to the large number of compositions, etc., in South Australia and Western Australia.

The Bankruptcy Act 1930 created a Federal Court of Bankruptcy and provided for the appointment of a Judge or two Judges thereto. In 1930 a Commonwealth Judge in Bankruptcy was appointed in addition to the State Judges to deal with bankruptcy work in New South Wales and Victoria, as the Courts in these States were unable to cope with the business. All the bankruptcy cases in these States are now heard in the Federal Court which sits in Sydney and Melbourne alternatively.

5. **High Court of Australia.**—Under the provisions of Section 71 of the Commonwealth Constitution, the judicial power of the Commonwealth is vested in a Supreme Court called the High Court of Australia, and in such other courts as the Parliament creates or invests with federal jurisdiction. The Commonwealth High Court possesses both original and appellate jurisdiction. The powers of the Court are defined in the Commonwealth Constitution, and in the Judiciary Act 1903–1950. The Court consists of a Chief Justice and six other judges. Sittings of the Court are held in the capitals

of the various States as occasion may require. The High Court functions as a Court of Appeal for Australia. The following statement shows the transactions of the High Court for 1949 and 1950.

TRANSACTIONS OF COMMONWEALTH HIGH COURT.

Original Jurisdiction.	1949.	1950.	Appellate Jurisdiction.	1949.	1950.
Number of writs issued	96	128			
Number of causes entered for trial ..	18	8	Number of appeals set down for hearing ..	95	86
Judgments for plaintiffs	27	14	Number allowed ..	36	31
Judgments for defendants	4	3	Number dismissed ..	51	37
Otherwise disposed of ..	11	31			
Amount of judgments	£264,204	£37,203	Otherwise disposed of	2	17

During 1949 and 1950 respectively the High Court dealt also with the following: Appeals from Assessments under Taxation Assessment Act, 23, 22; Special cases stated for the opinion of the Full Court, 30, 5; Applications for Prohibitions, etc., 63, 49. The fees collected amounted to £1,390 in 1949 and £1,277 in 1950.

6. **Commonwealth Court of Conciliation and Arbitration.**—Some information regarding this Court, which was established under the Commonwealth Conciliation and Arbitration Act 1904–1950, will be found in Chapter XI.—Labour, Wages and Prices, of this volume, and in the *Labour Report* issued by this Bureau.

§ 4. Police and Prisons.

1. **General.**—Early issues of the Official Year Book (*see* No. 4, p. 918) contain a *résumé* of the evolution of the police force in Australia up to the passing of the Police Act 1862 (25 Vic. No. 16) in New South Wales.

2. **Duties of the Police.**—In addition to the ordinary employment attaching to their office, the police are called upon to perform many duties which in other countries are carried out by various functionaries. Much of the time of the several forces is taken up in extraneous duties not connected with the protection of life and property, while the cash value of the services rendered to other Government departments is considerable.

3. **Strength of Police Force.**—(i) *General.* The strength of the police force in each State during 1939 and the years 1945 to 1949 is shown in the following table. It may be mentioned that the police forces (with the exception of the small body of Commonwealth police maintained in the Northern Territory and in the Australian Capital Territory) are entirely under State control, but, by arrangement, the Commonwealth Government utilizes their services in various directions, such as acting as aliens registration officers, and policing the various regulations, etc.

STRENGTH OF POLICE FORCES.

State or Territory.	Area of State in Sq. Miles.	No. of Police.					
		1939.	1945.	1946.	1947.	1948.	1949.
New South Wales	309,433	3,907	3,710	3,993	4,242	4,333	4,382
Victoria	87,884	2,333	2,131	2,183	2,268	2,385	2,597
Queensland(a) ..	670,500	1,460	1,741	1,734	1,796	1,982	2,040
S. Australia(a) ..	380,070	905	922	921	958	975	996
W. Australia(a) ..	975,920	600	626	661	673	730	759
Tasmania(a) ..	26,215	296	317	314	342	340	363
Nor. Territory(a)	523,620	48	46	40	53	65	58
Aust. Cap. Terr. ..	939	17	22	29	36	40	43
Total ..	2,974,581	9,566	9,515	9,880	10,368	10,850	11,238

(a) 30th June of year following.

The figures for New South Wales for 1949 exclude 15 "black trackers" and three "cadet trackers" (i.e., natives employed in detection of offenders chiefly in outlying districts) and 4 matrons, while the Victorian returns exclude one black tracker. For Queensland the figures exclude 30 black trackers, for South Australia 3 wardresses, for Western Australia 29 black trackers and 5 female searchers, and for the Northern Territory 33 black trackers. Women police are employed in all the States, the respective numbers for 1949 included in the table above being :—New South Wales 29, Victoria 18, Queensland 10, South Australia 18, Western Australia 9, Tasmania 6 and Australian Capital Territory 1. Their work is mainly preventive, relating particularly to females and neglected children. They also carry out escort duties in respect of female prisoners.

(ii) *Proportion to Population.* The average number of persons in the various States to each police officer during 1939 and the years 1945 to 1949 is shown in the following table. In considering these figures allowance must, of course, be made for the unequal area and unequal distribution of the population of the various States.

POLICE FORCES IN RELATION TO POPULATION.

State or Territory.	Number of Persons per Sq. Mile, 1947 Census.	Persons to each Police Officer.					
		1939.	1945.	1946.	1947.	1948.	1949.
New South Wales ..	9.65	708	791	742	709	707	725
Victoria	23.38	807	946	932	909	883	833
Queensland(a)	1.65	704	626	638	628	581	581
South Australia(a) ..	1.70	662	689	701	688	690	703
Western Australia(a) ..	0.51	789	787	760	766	730	735
Tasmania(a)	9.81	812	795	819	767	792	770
Northern Territory(a) ..	0.02	167	230	272	235	212	264
Aust. Cap. Territory ..	18.00	767	701	565	489	483	514
Total	2.55	733	782	763	739	721	726

(a) 30th June of year following.

4. **Prison Accommodation and Prisoners, 1948 and 1949.**—The table below shows the number of prisons in each State, the accommodation therein, and the number of prisoners under sentence at the end of 1948 and 1949 :—

PRISON ACCOMMODATION AND PRISONERS.

State or Territory.	Number of Prisons.		Accommodation in—				Prisoners at End of Year.	
			Separate Cells.		Wards.			
	1948.	1949.	1948.	1949.	1948.	1949.	1948.	1949.
New South Wales(*a*) ..	15	15	2,242	2,285	..	..	1,717	1,854
Victoria	9	9	1,288	1,288	340	340	912	993
Queensland(*a*)	8	7	570	570	109	109	376	406
South Australia ..	15	15	673	673	173	173	230	234
Western Australia(*a*) ..	21	21	551	504	207	207	314	333
Tasmania(*a*)	2	2	154	154	1	1	93	122
Northern Territory(*a*) ..	2	2	12	12	19	19	40	41
Total	72	71	5,490	5,486	849	849	3,682	3,983

(*a*) Year ended 30th June following.

The figures refer to prisoners under sentence and exclude aborigines and debtors. There are no gaols in the Australian Capital Territory, but there is a lock-up consisting of three cells attached to the police station at Canberra, and a similar lock-up at Jervis Bay, where offenders are held while awaiting trial or serving short sentences not exceeding one week imposed by the Magistrate's Court.

5. **Prisoners in Gaol, 1939 and 1945 to 1949.**—The number of prisoners in gaol at 31st December in each of the years 1939 and 1945 to 1949 and the proportion per 10,000 of the population are shown in the following table. The figures refer to prisoners under sentence and exclude aborigines and debtors.

PRISONERS IN GAOL.

State or Territory.	1939.	1945.	1946.	1947.	1948.	1949.
			NUMBER.			
New South Wales(*a*) ..	1,357	1,684	1,847	1,587	1,717	1,854
Victoria	1,144	966	952	915	912	993
Queensland	261	493	356	359	(*a*) 376	(*a*) 406
South Australia	199	213	250	267	230	234
Western Australia(*a*) ..	244	279	290	281	314	333
Tasmania(*a*)	108	96	120	100	93	122
Northern Territory ..	23	4	19	(*a*) 32	(*a*) 40	(*a*) 41
Total	3,336	3,735	3,834	3,541	3,682	3,983
			PER 10,000 OF POPULATION.			
New South Wales(*a*) ..	4·9	5·7	6.2	5·2	5·5	5·7
Victoria	6.1	4·8	4·7	4·4	4·3	4·6
Queensland	2.6	4·5	3·2	3·2	(*a*) 3·3	(*a*) 3·4
South Australia	3·3	3·4	3·9	4·1	3·5	3·4
Western Australia(*a*) ..	5·2	5·7	5·8	5·5	5·9	6.0
Tasmania(*a*)	4·5	3·8	4·7	3·8	3·5	4·4
Total	4·8	5·0	5·1	4·6	4·7	4·9

(*a*) 30th June of year following.

After remaining stationary at 6.5 per 10,000 for the four years ended 1932 the proportion of prisoners in gaol to the total population declined each year to 4.5 in 1937. It fluctuated slightly during the next four years but remained under 5.0. The proportion was 4.9 in 1942, but it rose slightly above this rate to 5.5 in 1944 and then fell to 4.6 in 1947, to rise again to 4.9 in 1949. This figure compares most favorably with that obtaining in 1891, when the proportion was as high as 16 per 10,000. Rates for the Northern Territory have not been included on account of the prevailing conditions.

6. **Improvement in Prison Methods.**—In previous issues of the Official Year Book a fairly detailed account is given of the improvements effected in each State during recent years in regard to methods of prison management (*see* Official Year Book No. 22, pp. 471–4), but this information is not repeated in the present volume.

§ 5. Cost of Administration of Justice.

1. **Expenditure by the States.**—The table below shows the expenditure from Consolidated Revenue during 1938–39 and 1948–49 and 1949–50 in connexion with the administration of justice in each of the States.

Net costs are shown instead of gross expenditure as it is difficult to obtain comparable figures of the total costs of the various services under this heading. It will be noted that in South Australia and Western Australia (except for 1949–50) the receipts for legal fees and registrations exceed the actual expenditure under "Justice".

NET EXPENDITURE ON ADMINISTRATION OF JUSTICE.

State.	Net Expenditure.			Per Head of Population.		
	Justice. £	Police. £	Prisons. £	Justice. s. d.	Police. s. d.	Prisons. s. d.
			1938–39.			
New South Wales ..	178,941	1,445,819	199,625	1 4	10 7	1 6
Victoria	104,903	796,626	103,202	1 1	8 6	1 1
Queensland.. ..	66,095	580,581	35,144	1 4	11 6	0 8
South Australia ..	−27,876	306,387	36,171	−0 11	10 4	1 3
Western Australia ..	−28,962	251,311	28,466	−1 3	10 9	1 3
Tasmania	22,780	118,478	15,071	1 11	10 0	1 3
Total ..	315,881	3,499,202	417,679	0 11	10 1	1 2
			1948–49.			
New South Wales ..	358,152	2,616,067	400,309	2 4	17 1	2 7
Victoria	250,767	1,460,021	189,769	2 4	13 10	1 10
Queensland.. ..	143,357	1,268,169	91,511	2 6	22 4	1 7
South Australia ..	−24,660	566,520	58,014	−0 9	17 0	1 9
Western Australia ..	−3,062	461,776	76,813	−0 1	17 8	2 11
Tasmania	47,087	202,339	30,930	3 6	15 1	2 4
Total ..	771,641	6,574,892	847,346	2 0	16 11	2 2
			1949–50.			
New South Wales ..	396,026	2,842,769	484,419	2 6	17 11	3 1
Victoria	251,402	1,909,705	231,979	2 4	17 7	2 2
Queensland.. ..	105,156	1,583,644	95,220	1 10	27 3	1 8
South Australia ..	−48,137	661,714	73,795	−1 4	19 3	2 2
Western Australia ..	1,691	536,738	86,151	0 1	19 8	3 2
Tasmania	49,647	227,180	34,857	3 7	16 5	2 6
Total ..	755,785	7,761,750	1,006,421	1 11	19 4	2 6

2. **Commonwealth Expenditure.**—The expenditure shown in the previous table is that incurred by the State Governments only, and does not include expenditure of the Commonwealth Attorney-General's Department which is shown hereunder for the years 1938–39 and 1945–46 to 1949–50.

EXPENDITURE OF THE COMMONWEALTH ATTORNEY-GENERAL'S DEPARTMENT.

(£.)

Year.	Gross Expenditure.	Receipts.	Net Expenditure.
1938–39	281,497	111,036	170,461
1945–46	472,604	135,239	337,365
1946–47	569,234	155,419	413,815
1947–48	688,572	178,591	509,981
1948–49	745,106	176,310	568,796
1949–50	820,560	183,398	637,162

The totals for each year include expenditure in connexion with patents and copyright which amounted in 1949–50 to £151,572. The Commonwealth took over jurisdiction in bankruptcy in August, 1928, and the expenditure thereon in 1949–50 amounted to £59,315. Expenditure in connexion with the Australian Capital Territory police in 1949–50 amounted to £35,955, and £12,847 was expended on miscellaneous items including the Law Court, Titles Office and Industrial Board. Revenue of the Attorney-General's Department for the year 1949–50 amounted to £183,398, comprising £123,727 for patents, copyright, trade marks and designs, £21,993 for bankruptcy and £37,678 miscellaneous, including fees and fines.

In addition to the foregoing, the amounts of £70,439 during 1948–49 and £71,923 in 1949–50 were expended in the Northern Territory for the upkeep of the police force and prison services.

CHAPTER VIII.

PUBLIC HEALTH AND RELATED INSTITUTIONS.

A. PUBLIC HEALTH.

§ 1. State Public Health Legislation and Administration.

1. **New South Wales.**—The Department of Public Health comes under the jurisdiction of the Minister for Health, with an Under-Secretary as Permanent Head of the Department for administrative purposes.

There is also a Director-General of Public Health and Chief Medical Adviser to the Government, who is ex-officio President of the Board of Health and Chairman of the Nurses' Registration Board. He is assisted by a Deputy Director-General.

The Inspector-General of Mental Hospitals, who, under present arrangements, is also the Director-General of Public Health, is responsible for the administration of that part of the Lunacy Act relating to the care and treatment of mental patients. There is also a Deputy Inspector-General.

The following statutory authorities are constituted under Acts administered by the Minister for Health :—Board of Health (Public Health Act), Hospitals Commission of N.S.W. (Public Hospitals Act), Milk Board (Milk Act), Dental Board (Dentists Act), Pharmacy Board (Pharmacy Act), Medical Board (Medical Practitioners Act), Board of Optometrical Registration (Opticians Act), Ambulance Transport Service Board (Ambulance Transport Service Act), Physiotherapists Registration Board (Physiotherapists Registration Act) and Nurses Registration Board (Nurses Registration Act).

The Department's activities extend over the whole of the State and embrace all matters relating to the public health and the greater part of the general medical work of the Government. These include the following :—(*a*) Supervision of the work of local authorities (municipal and shire councils) in relation to public health matters connected with the following Acts—Public Health Act, Noxious Trades Act and Pure Food Act ; (*b*) Scientific Divisions (Government Analyst, Microbiological Laboratory, and Division of Industrial Hygiene) ; (*c*) Tuberculosis and Social Hygiene Divisions ; (*d*) Medical Officers of Health at Sydney, Broken Hill, Newcastle, Wollongong, Bathurst and Lismore ; (*e*) State Hospitals and Homes and State Sanatoria ; (*f*) Mental Hospitals ; (*g*) Public Hospitals (Hospitals Commission) ; (*h*) Maternal and Baby Welfare (Baby Health Centres) ; (*i*) School Medical and Dental Services ; and (*j*) Publicity, Nutrition and Library Services.

2. **Victoria.**—The Ministry of Health Act 1943 made the Minister of Health responsible for all Acts administered up to that time by the Department of Public Health, the Hospitals and Charities Acts, the Mental Hygiene Acts, and all legislation and matters relating to the health and well-being of the people of the State.

The former Department of Public Health became the General Health Branch controlled by a Chief Health Officer. The latter also administers the Maternal and Child Hygiene Branch, and the recently constituted Tuberculosis Branch. These three with the Mental Hygiene Branch make up the four branches of the Department of Health.

The Secretary of the Department of Health and a number of administrative officers assist the Minister with all matters relating to policy, legislation, etc.

On 1st February, 1952 the Mental Hygiene Authority Act 1950 came into operation. This Act provides for the establishment of an Authority of three members with a medical expert in mental illnesses at its head. This Act established a pattern for the extension of the services of the Branch and for the improvement of treatment and accommodation of mental patients throughout the State. The Authority is responsible for the administration of the Mental Hygiene Branch.

The constant fight against infectious disease is actively carried on in the General Health Branch by seven District Health Officers and their staffs, in collaboration with the local health authorities. Where any specific infection is unduly prevalent, immunization is concentrated and the success obtained over a period of years is illustrated in the comparison of the following figures in respect of diphtheria :—Year 1927—cases, 3,254; deaths, 93 : Year 1950—cases, 326 ; deaths, 12.

The control and treatment of venereal disease is undertaken by a special division of the General Health Branch, and clinics for prophylaxis and treatment are attached to all hospitals receiving Government aid throughout the State.

The Poliomyelitis Division, formed during the outbreak of the disease in 1949 and expanded since that time, supervises treatment and after-care of patients throughout the State. The Division is staffed by three medical officers, ten physiotherapists and three visiting nurses. In addition to providing services for poliomyelitis sufferers, the Division gives some oversight to the care of persons suffering from spastic paralysis. For this latter purpose, a property has been purchased and is used as a training centre for children suffering from that condition.

Determining the suitability of sewerage projects and ensuring the safety of public buildings are the responsibilities of the Engineering Division of the General Health Branch, and it acts in an advisory and supervisory capacity in municipal undertakings of this nature. In conjunction with the Hospitals and Charities Commission of Victoria, it examines plans and advises on all hospital construction throughout the State.

The Industrial Hygiene Division supervises the environmental conditions of the 300,000 persons employed in industry in Victoria and consists of three medical officers, three special scientific officers and a number of inspectors.

Under the direction of a medical director, the Tuberculosis Branch comprises State sanatoria, tuberculosis clinics, tuberculosis bureaux and the Mass X-ray Survey Division. The latter service has visited every large Victorian centre and many of the smaller townships, affording to the population throughout the State every facility in obtaining an X-ray. A relatively new project, made possible by the acquisition by the Government of a suitable property, is a hostel for the accommodation of ex-tuberculosis patients during their rehabilitation.

As with the Tuberculosis Branch, a medical director supervises the activities of the Maternal and Child Hygiene Branch. This Branch embraces pre-natal hygiene, infant health, pre-school child hygiene and school medical and dental services. An extensive State-wide correspondence scheme for women during their pregnancy and early motherhood supplies these women with all the latest advice and information. With the recent appointment of a dental director to organize and develop the School Dental Services, it is hoped to provide regular and thorough dental attention for every school child in the State. Several well-equipped dental vans have already been purchased and will soon be in operation, and others are in the course of construction.

Legislation which comes within the purview of the Minister of Health includes the following :—Anti-Cancer Council Act, Birth Notification Act, Cancer Institute Act, Cemeteries Acts, Dietitians Registration Act, Goods Act, Hairdressers Registration Act, Health Acts, Hospitals and Charities Acts, Infectious Diseases Hospital Acts, Masseurs Acts, Medical Acts, Mental Deficiency Act, Mental Hygiene Acts, Midwives Act, Nurses Acts, Opticians Registration Act, Poisons Act and Venereal Diseases Act.

3. **Queensland.**—(i) *General.* The Health Acts 1937 to 1949 are administered by the Director-General of Health and Medical Services, under the direction of the Minister for Health and Home Affairs. The executive staff consists of the Director-General,

Deputy Director-General, State Health Officer, and twenty-seven food and sanitary inspectors and cadets. In addition, there is a Laboratory of Microbiology and Pathology under the control of a Director assisted by a medical officer, bacteriologists, and ancillary staff. Among other duties, the staff of this laboratory performs any necessary medico-legal work. A medical officer controls the Enthetic Diseases Section with the assistance of a female medical officer, nurses and trained attendants, while a microscopist and an inspector have charge of the Hookworm Campaign. A Leptospirosis Campaign, with head-quarters in Innisfail, North Queensland, is operating with a staff of five health inspectors.

The following services also come under the purview of the Department :—School Health Services, Maternal and Child Welfare Services, Chemical Laboratory, Mental Hygiene, Industrial Hygiene, and supervision of private hospitals.

The Health Acts of the State have made it obligatory for cases of certain diseases to be notified to the Health Department. These diseases are either of an infectious or contagious nature.

Branch offices, in charge of inspectors, are located at Toowoomba, Rockhampton, Mackay, Townsville, Cairns and Thursday Island, and, in conjunction with the Brisbane staff, are responsible for the enforcement of provisions of the Health Acts and Regulations dealing with food and drugs, milk sellers, health (food supply), fish supply, poisons, etc., and are concerned in a supervisory capacity with Local Authority health administration.

(ii) *Immunization.* Immunization of children against diphtheria and whooping cough is carried out on an extensive scale by Local Authorities. Active immunization against tetanus has been commenced in several areas. Up to the middle of 1950 the diphtheria prophylactic most favoured was formalinized toxoid, but recently local authorities have been using a more highly purified prophylactic with very satisfactory results. This toxoid will probably become the prophylactic of choice. Approximately 90 per cent. of children of school age have been immunized against diphtheria in Queensland. This is a highly satisfactory figure and diphtheria is no longer the menace of former years.

Although prophylaxis against whooping cough has not been practised as extensively as prophylaxis against diphtheria, most Local Authorities offer free immunization against whooping cough. The incidence of whooping cough appears to have declined markedly in recent years.

Several Local Authorities have already commenced campaigns for the active immunization of children against tetanus. It is believed that immunization against tetanus will become widely practised in this State.

Immunizing agents against diphtheria, tetanus and whooping cough are provided free to Local Authorities by the Commonwealth Government.

(iii) *Hospitals.* (*a*) *General.* There is a system of public hospitals throughout the State. The Brisbane General, South Brisbane Auxiliary, the Children's and the Brisbane Women's Hospitals provide public hospital accommodation for Brisbane. In addition, there are 66 private hospitals registered in the State, 35 per cent. of which are in Brisbane. The Mater Misericordiae has public, intermediate, private, and children's sections, and St. Martin's is a large private hospital. In the whole State, during 1950–51, there were 122 public hospitals, 2 tuberculosis sanatoria, and nine ambulance brigades, which were administered by 55 District Hospital Boards. Five other hospitals received aid from the Government. There were also 107 public maternity hospitals or sections of the foregoing hospitals.

Public hospitals supply free consultation and treatment, including radiological and pathological service, to out-patients. In-patient treatment in the public wards is also free. In conjunction with public hospitals, thirty dental clinics (excluding the Brisbane Dental Hospital) and twenty-one branch clinics are in operation.

The above-mentioned 66 private hospitals in Queensland are registered under the provisions of the Health Acts 1937 to 1949 (Division XI.). Licences may be issued under four categories :—(*a*) A general private hospital for medical, surgical, and maternity cases; (*b*) a lying-in hospital for maternity cases only; (*c*) a hospital for mental cases only (other than persons who have been certified as insane pursuant to the Insanity Acts); (*d*) any hospital for the treatment of mothers and/or infants.

Convalescent homes are not licensed or registrable.

Leprosaria are situated at Peel Island, in Moreton Bay, and at Fantome Island, near Townsville, each with a full-time medical officer. The former is for white persons only, and the latter for aboriginals. In Brisbane there is an Industrial Institution for the Blind, and a school for the Deaf and Dumb.

(*b*) *Public Hospitals.* The Hospitals Act Amendment Act 1944 provided, as from 1st July, 1945, that all the public hospitals in the State would come within the jurisdiction of District Hospitals Boards. Each board consists of not less than five and not more than nine members, including the chairman. One of the members is a representative elected by the component Local Authorities. The chairman and the remaining members are appointed by the Governor-in-Council.

The State Government is responsible for the net annual cost of administration and maintenance of all hospitals controlled by Hospital Boards, but from 1st January, 1946 the Commonwealth, under the Hospital Benefits Scheme, paid six shillings per patient per day for patients in public and private sections of public hospitals. The State Government agreed not to make any charge for patients in public sections of public hospitals. The Commonwealth subsidy extends to approved private hospitals. The amount was increased to eight shillings per day from 1st July, 1948 for patients in public wards of public hospitals, and from 1st November, 1948 for all other public hospital patients and private hospital patients.

4. **South Australia.**—The Department of Public Health embraces the activities of the Central Board of Health, the School Medical Services and the public health aspect of the control of tuberculosis, including the State X-ray Health Survey, under the control of the Director of Tuberculosis.

The Central Board of Health consists of five members, three of whom (including the chairman) are appointed by the Governor while one each is elected by metropolitan local boards and all other local boards.

The Central Board of Health administers the Health, Food and Drugs, Dangerous Drugs, Noxious Trades, Bakehouses Registration and Early Notification of Birth Acts. The Board is also concerned to some degree with Acts relating to local government, abattoirs and cremation.

Other legislation administered by the Department of Public Health relates to venereal diseases and vaccination.

The Health Act 1935–1950 constitutes every municipal council and every district council a local board of health for its municipality or district. There are 143 of these local boards under the general control and supervision of the Central Board. Under the Food and Drugs Act every local board is constituted the local authority for its respective district, except in the metropolitan area, for which the Metropolitan County Board is the local authority.

The medical staff of the Department includes the Director of Tuberculosis, a Senior Medical Officer and the Principal Medical Officer for Schools, five full-time medical officers, two temporary medical officers and six part-time medical officers. A dentist, dental assistant and six nurses are engaged in connexion with the School Medical Services.

There are seven full-time and sixteen part-time inspectors directly responsible to the Board.

There is also a nurse inspector employed to advise and assist local boards in connexion with infectious diseases.

The inspectors appointed under the Health and Food and Drugs Act periodically visit the local districts and see generally that the local boards are carrying out their duties.

5. Western Australia.—The legislation in this State is the Health Act 1911–1950. This was consolidated and reprinted in 1948 and amended by Act No. 25 of 1950. The Central Authority is the Department of Public Health, controlled by a Commissioner, who must be a qualified medical practitioner. The State is covered by Local Authorities which are constituted as Municipalities or Road Boards.

It is provided that a Local Board of Health may be set up in lieu of a Road Board, but this method of control is no longer used. In any emergency the Commissioner may exercise all the powers of a Local Health Authority in any part of the State.

Interesting features of recent legislation are as follows :—(*a*) Act No. 70 of 1948 gave compulsory power to control sufferers from tuberculosis and established a Tuberculosis Control Branch ; and (*b*) Act No. 71 of 1948 provided that within areas declared for the purpose all still-born infants must be submitted for post-mortem examination and all still-births must be notified to the Commissioner by the attending medical practitioner.

All the usual provisions for public health control are embodied in the Health Act. They include the medical and dental examination of school children, control of public buildings, inspection of food and the provision of standards thereof. The Nurses Registration Act now makes provision for the registration of nurses in each of the following branches of the nursing profession—general, midwifery, tuberculosis, infant health, mothercraft, mental and children's.

6. Tasmania.—The Department of Public Health is under the jurisdiction of the Minister for Health, and the administration of the various services is controlled by the Director of Public Health, Hospital and Medical Services as permanent head of the Department. Associated with the permanent head are the Director of Tuberculosis, Director of Mental Hygiene, and two Assistant Medical Directors with varying duties allotted to each Director.

Public Health functions comprise administration of laws relating to public health, food and drugs, places of public entertainment and cremation, and the following services : School Medical and Dental, Maternal and Child Welfare, Venereal Disease Clinics, Analytical Laboratory, and Mothercraft Home. The Hospital and Medical Services section is responsible for administration of the laws relating to hospitals and nurses' registration, and the following services :—Government Medical Service, Bush Nursing Service, Institutions for the Aged and Infirm at St. John's Park and Cosgrove Park. The Tuberculosis section is responsible for administration of the laws relating to tuberculosis, and for the management of Chest Clinics and Chest Hospitals at New Town and Perth. The Mental Hygiene section is responsible for administration of the laws relating to mental hospitals and mental defectives, and for the management of Lachlan Park Hospital (Mental Hospital) and Millbrook Psychopathic Home.

§ 2. The National Health and Medical Research Council.

In 1926 the Commonwealth Government established a Federal Health Council, in accordance with a recommendation of the Royal Commission on Health (1925), "for the purpose of securing closer co-operation between Commonwealth and State Health Authorities ". This Council held sessions each year except in 1932. In 1936 the Commonwealth Government decided to create a body with wider functions and representation, and the National Health and Medical Research Council was established with the following functions :—

To advise Commonwealth and State Governments on all matters of public health legislation and administration, on matters concerning the health of the public and on medical research.

To advise the Commonwealth Government as to the expenditure of money specifically appropriated as money to be spent on the advice of this Council.

To advise the Commonwealth Government as to the expenditure of money upon medical research and as to projects of medical research generally.

To advise Commonwealth and State Governments upon the merits of reputed cures or methods of treatment which are from time to time brought forward for recognition.

The Council consists of the Commonwealth Director-General of Health (as Chairman), two officers of his Department, the official head of the Health Department in each State, together with representatives of the Federal Council of the British Medical Association, the Royal Australasian College of Surgeons, the Royal Australasian College of Physicians, the Australian Regional Council of the Royal College of Obstetricians and Gynaecologists, the Australian Dental Association, and (jointly) the four Australian Universities having medical schools. A prominent layman and laywoman, appointed by the Commonwealth Government, also serve on the Council.

The first session of the National Health and Medical Research Council met at Hobart in February, 1937; the thirtieth session met at Sydney in November, 1950.

Under the Medical Research Endowment Act 1937, the Commonwealth Government has made an annual appropriation of funds to provide assistance :—

(*a*) to Departments of the Commonwealth or of a State engaged in medical research;
(*b*) to Universities for the purpose of medical research;
(*c*) to institutions and persons engaged in medical research;
(*d*) in the training of persons in medical research.

Approved research institutions under this system now number 51. During the year 1950, grants numbered 46 in the following fields :—bacteriology, biochemistry, biophysics, clinical dentistry, epidemiology, neurology, neuro-physiology, obstetrics, parasitology, physiology and pharmacology, and tuberculosis and virus diseases. In certain instances, equipment and apparatus have been made available by the Council; this has greatly facilitated some specialized lines of research. The wide scope of work being carried out is greatly assisted by the formation of committees which meet regularly and advise the Council in such subjects as industrial hygiene, public health, epidemiology, maternal and child welfare, radio-active isotopes, antibiotic distribution, tropical physiology and hygiene, tuberculosis and the latest developments in X-ray technology and application.

The research work being done under these grants is of a high standard, many of the individual investigators enjoying international reputation. Beyond this practical achievement, the original objectives of the Council are being attained in encouraging young graduates to take up research work and in securing a continuity and permanence of medical research in Australia.

An insurance benefit scheme for medical workers on the lines of the Federated Superannuation System for Universities is now in operation.

§ 3. The Commonwealth Department of Health.

1. **General.**—An Order-in-Council dated 3rd March, 1921 defined various functions to be performed by the Commonwealth Department of Health in addition to Quarantine, which at that time was the only specific public health power of the Commonwealth Parliament under the Commonwealth Constitution. An amendment of the Constitution in 1946 gave the Commonwealth Government power to provide a complete Health Service to the nation including medical advice and treatment. The National Health Service Act 1948–1949 provides for Commonwealth activity in establishing hospitals, laboratories, health centres and clinics, post-graduate training in all branches of medicine, courses of training in the Auxiliary Medical Services, research, prevention of disease and medical education. Many essential services have been developed by the Department to meet current needs and to further public health throughout Australia. In earlier issues of the Official Year Book reference has been made to several features of this development,

including :—The Royal Commission on National Health, 1925 (*see* No. 22, pp. 509–10), the International Pacific Health Conferences (*see* No. 22, p. 510 and No. 29, p. 334), Industrial Hygiene (*see* No. 18, pp. 522–55), Tropical Hygiene (*see* No. 22, pp. 506–7, No. 25, pp. 415–7, and No. 32, p. 226), and the Commonwealth Advisory Council on Nutrition (*see* No. 32, pp. 222–23). Reference to quarantine is made below (*see* § 3. pars. 12 and 13 and § 4. par. 2).

2. **The Commonwealth Serum Laboratories.**—The establishment for the preparation of Jennerian vaccine situated at Royal Park, near Melbourne, formerly known as the "Calf Lymph Depot" was in 1918 greatly enlarged by the Commonwealth. The remodelled institution is designated the "Commonwealth Serum Laboratories" and is administered by the Commonwealth Department of Health. The laboratories are now installed in fully equipped buildings and a large staff is employed. At Broadmeadows, near Melbourne, a farm of 254 acres has been developed, under veterinary supervision, for the many thousands of animals required for the work of the laboratories.

The list of biological preparations produced by the laboratories has been extended, until at the present time almost the whole range of these products is manufactured and Australia is practically independent of other countries in thus producing its own requirements. Penicillin is being produced in increasingly large quantities, which it is anticipated will shortly suffice for total Australian requirements. Constant research is being conducted into every relevant aspect of bacteriology and immunology and new sera and prophylactic agents are being tested as the growth of medical knowledge opens up new avenues of treatment, prevention and diagnosis. Other original and applied research relating to all aspects of public health is maintained. The laboratories serve as the national centre for the maintenance in Australia of the international standards of the Permanent Commission on Biological Standards (World Health Organization Interim Commission). For the past 27 years the production of veterinary biological products has been a feature of the work of the laboratories. In recent years an extensive development has occurred in this direction and the products are being used in greatly increased amounts in all States for the prevention or treatment of diseases in domestic animals and stock.

3. **The Commonwealth Health Laboratories.**—The fifteen health laboratories of the Department are situated at strategic points throughout Australia. They are located at Darwin, Cairns, Townsville, Rockhampton, Toowoomba, Lismore, Bendigo, Launceston, Hobart, Port Pirie, Kalgoorlie, Broome, Tamworth, Wollongong and Albury. These laboratories were established as an essential part of the quarantine system but were also to undertake research into local health problems and to provide medical practitioners of each district with up-to-date facilities for laboratory investigation and diagnosis. It was realized that co-operation between the general practitioner with his clinical observations and knowledge of the environment of disease on the one hand, and the staff of a well-equipped laboratory on the other hand, is essential to the efficient investigation of disease and the effective operation of control measures.

From this standpoint, the laboratories have already proved their value in the determination of Weil's disease and endemic typhus in North Queensland, in the investigation of special local problems at Darwin, of undulant fever throughout Australia, of silicosis and tuberculosis at Kalgoorlie and of plumbism at Port Pirie. In these investigations close co-operation has existed with State and local health and hospital services; especially is this so in Queensland where collaboration has yielded exceptionally valuable results in differentiating the groups of fevers hitherto unclassified in that State. In this investigational work, as well as in more routine activities, the laboratories have at their disposal the full resources and technical and specialist facilities available at the Commonwealth Serum Laboratories and the Sydney School of Public Health and Tropical Medicine.

A major part of the work performed at the Kalgoorlie laboratory, since its establishment in 1925, has been the medical examination, on behalf of the State Department of Mines, of employees and applicants for employment in the metalliferous mines in Western Australia. These examinations are performed in accordance with the provisions of the

State Mines Regulation Act and the Mine Workers' Relief Act, the objects of which are to provide a healthy body of men for the industry and to free the industry and protect the future of those found to be suffering from serious pulmonary disease. The examinations include clinical, laboratory and radiographic investigation. By means of a mobile X-ray unit an annual tour is also made of outlying mining centres.

X-ray facilities are also provided at the Bendigo laboratory, as part of the campaign against tuberculosis, for the examination of miners and for other radiographic work in the district.

4. **Commonwealth Acoustic Laboratories.**—The Department of Health established the first of the series of Acoustic Laboratories in January, 1947, in Erskine House, York-street, Sydney.

The laboratory continued and expanded the work of the Acoustic Research Laboratory which was sponsored by the National Health and Medical Research Council during the years 1942–1946 for the purpose of investigating problems of noise and difficulties of intercommunication in aircraft and tanks. With the cessation of hostilities the Acoustic Research Laboratory directed its attention to the problem of deafness in children, particularly the group whose affliction was caused by the mothers contracting rubella in the early months of pregnancy.

The taking over of the Acoustic Research Laboratory by the Department of Health was influenced by the request from the Repatriation Commission for technical assistance in the matter of the supply of hearing aids to deafened ex-servicemen. Arrangements for this purpose were completed and branch laboratories were established in all other State Capital Cities.

During the year 1948 the Acoustic Laboratories Act was passed to allow the expansion of activities on the following lines :—(1) To carry out the requirements of the Repatriation Commission for deafened ex-Service personnel and to provide a similar service for the Commonwealth Department of Social Services in respect of deafened ex-Service personnel whose disability was not caused by war service ; (2) to assist the Education Departments of the States in measuring deafness, fitting aids, and maintaining hearing aid equipment for school children ; (3) to act on behalf of various State and other authorities who desire to have independent tests made before assisting financially in the purchase of hearing aids for people under their care ; and (4) the investigation of problems associated with noise in industry.

The laboratory in Sydney is now known as the Commonwealth Central Acoustic Laboratory and is responsible for the training of personnel for the whole Acoustic Service, the production of equipment, the calibration of hearing aids and audiometers and the technical administration of the branch laboratories.

5. **Commonwealth Bureau of Dental Standards.**—The National Health and Medical Research Council sponsored the Dental Materials Research Laboratory during the years 1939–1946, for the purpose of assisting the Defence Services, the Medical Equipment Central Committee and other Government Departments in the selection and purchase of suitable dental equipment and materials. Valuable assistance was also given to Australian manufacturers of dental materials in relation to improvement of their products and the development of new materials.

Much of the work was of a routine nature and with the cessation of hostilities the National Health and Medical Research Council decided to cease its sponsorship but recommended that the Department of Health should take over the laboratory as it was serving a good purpose. This was done in January, 1947, and the laboratory was renamed the Commonwealth Bureau of Dental Standards and is at present situated in the grounds of the University of Melbourne.

The functions of the Bureau are as follows :—(1) Original research into dental equipment, materials, techniques and processes ; (2) the development, in consultation with a representative committee of the Commonwealth Department of Health, of the Australian Dental Association and the Standards Association of Australia of specifications for dental materials and equipment ; (3) regular systematic surveys of dental materials on sale to the profession in Australia, and the reporting of the results of such investigations in recognized Australian scientific journals; and (4) the provision of a consultative service and testing facilities for local manufacturers of dental materials with the view to assisting them in the improvement of existing products and the development of new materials.

6. **The School of Public Health and Tropical Medicine.**—The Commonwealth Government, under an agreement with the University of Sydney, established a School of Public Health and Tropical Medicine at the University of Sydney as from 4th March, 1930, for the purpose of training medical graduates and students in the subjects of public health and tropical medicine. The organization of the Australian Institute of Tropical Medicine at Townsville was merged in the new school, and the staff, equipment and material were transferred to Sydney.

The work of the school comprises both teaching and investigation. Courses are held for the University post-graduate diploma of public health and the diploma of tropical medicine and hygiene. Lectures are given in public health and preventive medicine as prescribed for the fifth year of the medical curriculum. Other classes include students in architectural, social and school hygiene, and lay officers and nurses in the tropical services and missionaries. In addition to this work throughout the war, all the resources of the School were made available for the training of medical and hygiene officers and other ranks from all the Services of the Australian and Allied Forces.

Investigational work covers a wide field of public health and medical subjects, both in the laboratory and in the field. Field work has been carried out not only in Australia but in co-operation with the local administrations in Papua, New Guinea, Norfolk Island and Nauru. Sections of Child Health and Occupational Disease have been established and suitable staff selected. Further details may be found in previous issues of the Official Year Book (*see* No. 29, p. 334).

7. **The Australian Institute of Anatomy.**—Information concerning the Australian Institute of Anatomy at Canberra is given in previous issues of the Official Year Book (*see* No. 32, pp. 919-21). In 1931 the Institute became an integral part of the Commonwealth Department of Health. The work of the Institute on general problems of comparative anatomy has now been concentrated on aspects of structure and function with special reference to the development of the growing child. Biochemical and biological research in this field is being developed in close association with the model kindergarten centres established by the Department in each capital city (*see* par. 10 below). Work in specialized aspects of nutrition has steadily increased. The Institute now plays an important part in research and the scientific application of nutritional knowledge under Australian conditions. The background of comparative anatomy and the museums of the Institute are maintained as part of the general plan of work, and an expert zoologist is a member of the body of research workers at the Institute. *See also* Chapter XXIX.—Miscellaneous.

8. **The Northern Territory Medical Service.**—As from 1st April, 1930, the Commonwealth Department of Health assumed administrative responsibility for the medical and health services of the Northern Territory, absorbing the Northern Territory Medical Service. With the growing importance of Darwin as the northern gateway to Australia and as an administrative and service centre, its health services were strengthened, a new hospital at Darwin was built and the hospital at Alice Springs was enlarged.

With civilian evacuation during the Pacific war, military control of the medical services operated in the years 1942 to 1945. Civilian control was resumed by the Department during the period November, 1945 to May, 1946, starting at Alice Springs and gradually extending north to Darwin. The hospitals at Alice Springs, Tennant Creek, Katherine and Darwin, and the Health Laboratory at Darwin were re-established as civilian institutions. A pathological laboratory and leprosarium are maintained at Darwin. Dental services are available at hospitals and mobile road and aerial district units serve the outback.

An aerial medical service, operated by the Department, is based on Darwin, and comprises two Dragon and a Miles Gemini aircraft and two pilots. Emergency and routine flights and surveys are undertaken by this service, and at Alice Springs medical officers of the Northern Territory Medical Service act for the Flying Doctor base.

The Commonwealth Department of Health maintains a Quarantine Station at Darwin which is a major first port of entry for oversea aircraft. Public health services are provided at the major centres.

9. **National Fitness.**—Health authorities in Australia have closely followed the world-wide movement for the advancement of physical fitness and in several States active work has been proceeding over some years. In 1938, following a recommendation of the National Health and Medical Research Council, the Commonwealth Government agreed to appoint a Commonwealth Council for National Fitness, under the Commonwealth Minister for Health, to effect collaboration of Commonwealth, State and local government authorities in the movement. Meetings of this Council are held at regular intervals, at least annually. Meanwhile, active State Councils have been formed in all States. As a result of the recommendations of the central Council, the Commonwealth Government agreed to make available an annual sum of £20,000 for five years and grants were allocated to each State for purposes of organization and to each of the six Australian universities to establish lectureships in physical education. In July, 1941 a National Fitness Act was passed by the Commonwealth Parliament to ensure greater permanence to the movement, and in June, 1942 the Commonwealth grant was increased to £72,500 to include grants to State Education Departments and for the work in the Australian Capital Territory. In 1946 the total grants were extended for a further period of five years. The movement continues to develop and to gain public interest and support throughout Australia.

10. **The Pre-school Child.**—Sessions of the National Health and Medical Research Council and the reports of the Commonwealth Advisory Council on Nutrition have called attention to the need for greater effort throughout Australia directed towards the care of the growing child, especially during the pre-school period. Movements for the care of the infant and the welfare of the school child are already developed by State authorities as recorded in §§ 7 and 8 below. The Commonwealth Government felt that more could be done for the child of pre-school age, and it was decided to give a lead by making it possible to demonstrate what could be done and the practical methods which could be applied.

The Commonwealth Government therefore decided to establish in each capital city a pre-school demonstration centre, known as the Lady Gowrie Child Centre, and in order to achieve the best results in association with those who have had experience in this field it has secured the co-operation of the Federal Organization of Kindergarten Unions which is operating under the title of "The Australian Association for Pre-school Child Development". A suitable site was secured in each capital city and the necessary school structure was built. Formerly the administration of these centres was under the direction of the local Kindergarten Union and the employment of staff was made with the approval of the Commonwealth Department of Health. Recently the local Lady Gowrie Child Centre Committees were given a greater degree of autonomy, so that while the technical supervision still rests with the Australian Association for Pre-school Child Development, the management of each centre, including staffing, is in the hands of the local Committee. This development is associated with a change in the method of financial control. An annual grant is made to each Committee towards the cost of the centre, the disbursement of these funds being at the discretion of the local Committee, subject to the general supervision of the Australian Association for Pre-school Child Development. This applies in so far as the educational side is concerned, and in this field advantage is being taken of the opportunity to try new methods and to make systematic records of observations with the object of securing reliable knowledge of the educational technique of this pre-school period.

Along with this educational practice there proceeds also the study of physiological requirements of the child and of the interaction between physical and mental health under varying conditions. The children available at these centres provide a considerable mass of human material for control and study, which is of great value in view of the importance of the study of growth and of nutrition of their age-period. Not only are routine measurements made of height, weight and other bodily data, but problems of nutrition are studied in detail. The medical work at each State centre is conducted on a uniform basis, according to a scheme formulated at, and directed from, the Australian Institute of Anatomy, Canberra, where parallel investigations on the laboratory side are being undertaken.

11. **Organization for the Control of Cancer.**—The persistent increase in cancer mortality has led to the development in Australia of a national organization directed towards the control of this disease. The Commonwealth Department of Health has actively participated in this movement. Since 1928 the Australian Cancer Conferences, convened by the Department, have provided an opportunity each year for those actively engaged in the campaign against the disease to meet for the discussion of problems and the determination of lines of action and further development. The tenth conference in this series met in New Zealand in February, 1939, and so marked an association which has been maintained between Australia and the Dominion since the inception of the conferences.

A large amount of radium purchased in 1928 by the Commonwealth Government for use in treatment and research has been distributed on loan to treatment centres throughout Australia. Under the terms of this loan, treatment at well-equipped clinics is available to all requiring it, irrespective of ability to pay. This work is co-ordinated by the Department.

Close co-operation is maintained between research workers, physicists and biochemists and the medical men engaged in the clinical investigation and treatment of the disease, so that problems are mutually investigated and treatment is applied with the highest attainable degree of scientific accuracy.

Realizing the essential importance of accuracy in determining the quality of radiation used in the treatment of cancer and in measuring the dosage of this radiation actually delivered to the tumour, and the need for the investigation of physical problems in connexion with the utilization of X-rays and radium in the treatment of disease, the Commonwealth Department of Health in 1935 extended the work of the Commonwealth Radium Laboratory, established in 1929, to include the investigation of the physical problems of radiation therapy generally. This laboratory, known as the Commonwealth X-ray and Radium Laboratory, is situated by agreement with the University of Melbourne within the University grounds, and is maintained, controlled, and staffed by the Commonwealth Department of Health. It is accommodated in a building specially designed for work with X-rays and radium, and is amply provided with all necessary equipment for research work, including a 500,000 volt high tension generator.

The laboratory co-operates closely with the local physical services which have been developed in the other capital cities of Australia to provide local facilities for the production of radon, for the calibration of X-ray therapy equipment, and for the measurement of radiation exposure of X-ray and radium workers.

The laboratory has continued to repair radium containers. It also undertakes investigations into physical problems arising in the use of X-ray and radium in treatment.

During the year 1950, a total of 95,290 millicuries of radon was prepared and issued from the laboratory, while 41,124 millicuries were issued by the associated centres in Sydney, Adelaide and Brisbane. The corresponding figures for 1949 were 81,187 and 38,858 millicuries respectively. The issue of radon from a few centres to serve hospitals all over the continent is a unique Australian development, and enables a very efficient use to be made of the radium available.

The development of atomic energy programmes overseas has made available supplies of artificial radio-isotopes which can be used as an alternative to natural isotopes such as radium and radon. Supplies of radio-phosphorus and radio-iodine are now being distributed by the laboratory for medical work throughout Australia according to a policy developed by the National Health and Medical Research Council Standing Committee on X-rays. The use of radio-iodine has involved the laboratory in the development of a scheme of physical measurements which can readily be made in hospitals.

12. **Animal Quarantine.**—The Division of Veterinary Hygiene was created in 1926 to deal with the administration of the Quarantine Act 1908–1950 in so far as it relates to animal products and other articles which might be the means of transmitting diseases of animals. Formerly the full responsibility of this aspect was carried by the Director of Quarantine.

The organization of the Division provides an excellent example of Commonwealth and State co-operation. The Central Administration is situated within the Health Department at Canberra with a Director, an Assistant Director and Veterinary Officers. By provision in the Quarantine Act and by arrangement with the States, the Principal Veterinary Officer of the Department of Agriculture in each State is appointed Chief Quarantine Officer (Animals) of the State and members of his staff Quarantine Officers (Animals). These State officers, acting in their Commonwealth capacity, implement quarantine policy as formulated by the Central Administration. Quarantine accommodation is provided at permanent animal quarantine stations at each Capital City.

Animal Quarantine is authorized by the provisions of the Quarantine Act 1908–1950 and has as its objective the prevention of the introduction or spread of diseases of animals. This legislation covers the importation of all animals, raw animal products, biological cultures, etc., associated with animal diseases and goods associated with animals.

Domesticated animals, i.e., horses, cattle, pigs, sheep, goats, dogs, cats and poultry are admitted from a limited number of countries depending on diseases present in the country of origin. All must be accompanied by health certificates which include prescribed tests. On arrival in Australia they are subject to quarantine detention.

Zoological specimens are imported into registered zoos where they remain in permanent quarantine. Circuses are also registered if exotic species of animals are kept. In a somewhat similar manner, animals for scientific purposes are imported to approved laboratories. All of these premises are kept under constant surveillance.

Raw animal products such as hair, special types of wool, skins, hides, etc., are subjected to special treatment under quarantine control, whilst such items as raw meat, sausage casings and eggs, which cannot be sterilized, are admitted from very few countries. Other items such as harness, fittings, fodder, ship's refuse, etc., are appropriately treated to destroy possible infection.

The Division participates in world-wide international notification of the more serious contagious diseases of animals and maintains a census of such diseases throughout the world.

Information regarding animal diseases and parasites in Australia is also collected and disseminated by means of service publications.

Consultation on technical matters is maintained with various scientific institutions, notably the Commonwealth Scientific and Industrial Research Organization.

In matters of policy and the implementation of quarantine control of imports there is a close liaison with the Department of Trade and Customs.

The Division collaborates with the "General" and "Plant" Divisions of the Quarantine Service. Many diseases of animals are communicable to man and for this reason "Animal" and "General" quarantine administration are in some respects inseparable. Similarly the interests of "Animal" and "Plant" Divisions overlap, many items such as insects, fodder, straw, etc., being the subject of combined control.

13. **Plant Quarantine.**—Since 1st July, 1909, the importation into Australia of all plants or parts of plants, cuttings, seeds and fruits, whether living or dead, has been subject to an increasingly stringent quarantine with the object of preventing the introduction of insect pests, plant diseases and weeds not yet established in this country.

Under the Quarantine Act 1908–1950 general powers are held by which the quarantine inspectors are required to examine all plant material at the first port of entry and to release only such material as is free from diseases and pests. Everyone reaching Australia is required to declare if he or she has any plant material in luggage or personal effects. Heavy penalties are laid down for those found deliberately evading the regulations. All plant material entering as cargo must also be declared.

When the Commonwealth became responsible for all plant quarantine, the State Governments agreed to co-operate by providing and maintaining inspection facilities and personnel for which they are reimbursed by the Commonwealth. In 1921 the administration of the regulations came under the newly-formed Department of Health, and in 1927 the Division of Plant Quarantine was created under a Director who is responsible for policy and legislation and for co-ordinating the work of the State Officers who carry out the detailed administration in their capacity as Commonwealth Officers.

Any plant material found carrying diseases or pests or suspected of doing so may be ordered into quarantine for remedial treatment, or if the treatment be impracticable, may be destroyed. Such treatments are paid for by the importer. Air transport has created many new problems in maintaining effective control. It is impossible in this summary to give details of regulations governing the different types of plants, but the following will indicate certain broad principles in them.

(*a*) The importation of plant diseases, insect pests, noxious fungi, certain weeds and poison plants, and soil likely to carry these things is prohibited.

(*b*) Agricultural seed must conform to standards of purity.

(*c*) Many commodities such as hops, cotton, peanuts in shell, nursery stock, potatoes, important crop seeds, vines and specified plants may only be imported by approved importers under special conditions.

(*d*) Certain plant products, such as bulbs and timber (in logs or sawn), from specified areas may only be imported if accompanied by certificates showing that prescribed treatment has been given in the country of origin.

The regulations are constantly being amended in the light of experience, with the object of maintaining for Australia the freedom from a large number of serious diseases and pests of plants which ravage crops in other lands.

§ 4. Control of Infectious and Contagious Diseases.

1. **General.**—The provisions of the various Acts in regard to the compulsory notification of infectious diseases and the precautions to be taken against the spread thereof may be conveniently dealt with under the headings—Quarantine; Notifiable Diseases, including Venereal Diseases; and Vaccination.

2. **Quarantine.**—The Quarantine Act is administered by the Commonwealth Department of Health, and has three sections of disease control, as follows :—(i) Human quarantine which controls the movements of persons arriving from overseas until it is apparent that they are free of quarantinable disease; (ii) Animal quarantine which

controls the importation of animals and animal products from overseas and the security of other animals present on vessels in Australian ports, and (iii) Plant quarantine which regulates the conditions of importation of all plants and plant products with the object of excluding plant diseases, insect pests and weeds. (*See* § 3. pars. 12 and 13 above.)

In regard to interstate movements of animals and plants, the Act becomes operative only if the Governor-General be of opinion that Federal action is necessary for the protection of any State or States ; in general, the administration of interstate movements of animals and plants is left in the hands of the States.

The Commonwealth controls stations in each State for the purposes of quarantine of humans, animals and plants.

3. Notifiable Diseases.—(i) *General.* (*a*) *Methods of Prevention and Control.* Provision exists in the Health Acts of all the States for the observance of precautions against the spread and for the compulsory notification of infectious disease. When any such disease occurs, the local authority must at once be notified, and in some States notification must be made also to the Health Department. The duty of making this notification is generally imposed, first, on the head of the house to which the patient belongs, failing whom on the nearest relative present, and, on his default, on the person in charge of or in attendance on the patient, and, on his default, on the occupier of the building. Any medical practitioner visiting the patient is also bound to give notice.

As a rule, the local authorities are required to report from time to time to the Central Board of Health in each State as to the health, cleanliness and general sanitary state of their several districts, and must report the appearance of certain diseases. Regulations are prescribed for the disinfection and cleansing of premises, and for the disinfection or destruction of bedding, clothing, or other articles which have been exposed to infection. Bacteriological examinations for the detection of plague, diphtheria, tuberculosis, typhoid and other infectious diseases within the meaning of the Health Acts are continually being carried out. Regulations are provided in most of the States for the treatment and custody of persons suffering from certain dangerous infectious diseases, such as small-pox and leprosy.

(*b*) *Diseases Notifiable and Cases Notified in each State and Territory.* The following table, which has been compiled by the Commonwealth Department of Health, shows for each State and Territory the diseases notifiable in 1949 and 1950 and the number of cases notified. Diseases not notifiable in a State or Territory are indicated by an asterisk.

[NOTE.—The table has been altered to conform to the recommendation of the National Health and Medical Research Council, Thirtieth Session, 1950, Meningococcal Infection being substituted for Cerebro-spinal Meningitis, Leptospirosis for Weil's Disease and Ornithosis for Psittacosis, while Beriberi, Coastal Fever, Erysipelas, Gastro-enteritis, Influenza, Measles and Whooping Cough have been deleted. Other diseases recommended to be notifiable will be included as appropriate legislation is amended and notification becomes operative in the States and Territories.]

DISEASES NOTIFIABLE IN EACH STATE AND TERRITORY AND NOTIFICATIONS FOR THE YEARS ENDED 31st DECEMBER, 1949 AND 1950.

Disease.	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
YEAR 1949.									
Anchylostomiasis †	*	105	22	..	52	..	3	..	182
Anthrax	*	..	..	..	..	..	..	..	..
Bilharziasis	*	..	..	..	..	..	*	..	..
Brucellosis	4	16	5	2	9	..	..	3	39
Cholera	..	..	..	..	..	..	..	..	..
Dengue	*	*	*	*	1	*	..	*	1
Diarrhoea, infantile ‡	*	*	202	*	3	*	*	*	205
Diphtheria	627	401	169	38	170	19	5	1	1,430
Dysentery, amoebic	*	40	..	2	18	1	..	..	61
Dysentery, bacillary	*	12	79	3	22	3	82	44	245
Encephalitis	6	4	5	..	..	..	..	..	15
Filariasis	*	*	1	..	..	..	*	..	1
Hydatid §	*	15	*	*	..	9	*	..	24
Leprosy	2	..	4	..	51	..	24	..	81
Leptospirosis	*	*	11	*	..	*	*	*	11
Malaria	*	4	33	..	13	3	15	..	68
Meningococcal infection	86	67	20	16	13	9	..	..	211
Ophthalmia	*	*	*	*	3	*	158	*	161
Ornithosis	*	..	*	2	*	*	*	*	2
Paratyphoid	..	6	..	2	..	1	*	*	9
Plague	..	..	..	..	..	..	..	..	..
Poliomyelitis	183	761	20	582	61	36	..	5	1,648
Puerperal Fever	26	3	29	26	7	6	..	..	97
Rubella ‖	*	*	76	*	101	4	*	27	208
Salmonella infection ¶	*	*	*	*	11	*	*	*	11
Scarlet Fever	1,514	1,260	367	372	199	109	..	21	3,842
Smallpox	..	..	..	..	..	..	..	..	..
Tetanus	*	6	32	*	10	*	*	*	48
Trachoma	*	..	*	*	*	*	*	..	..
Trichinosis	*	*	*	..	*	*	*	*	..
Tuberculosis	1,641	814	434	269	519	207	19	11	3,714
Typhoid Fever	8	9	22	7	15	4	..	..	65
Typhus, endemic (*a*)	11	..	69	6	61	..	1	..	148
Yellow Fever	..	..	..	..	..	..	..	..	..
YEAR 1950.									
Anchylostomiasis †	*	25	62	..	33	..	4	..	124
Anthrax	*	1	1	..	..	..	..	..	2
Bilharziasis	*	..	..	..	..	..	*	..	..
Brucellosis	1	21	4	2	7	..	..	..	35
Cholera	..	..	..	..	..	..	..	..	..
Dengue	*	*	*	*	1	*	..	*	1
Diarrhoea, infantile	*	*	167	*	4	*	*	*	171
Diphtheria	390	326	172	35	172	17	..	..	1,112
Dysentery, amoebic	*	25	2	4	19	10	..	..	60
Dysentery, bacillary	*	76	244	3	45	..	..	24	392
Encephalitis	2	1	4	..	6	..	..	..	13
Filariasis	*	*	2	..	..	..	*	..	2
Hydatid	*	15	*	*	..	1	*	..	16
Leprosy	1	..	1	1	60	..	25	..	88
Leptospirosis	*	*	55	*	*	*	*	*	55
Malaria	*	7	24	..	15	..	6	..	52
Meningococcal infection	98	63	44	14	24	14	2	..	259
Ophthalmia	*	*	*	*	14	*	200	*	214
Ornithosis	*	..	*	1	*	*	*	*	1
Paratyphoid	..	2	..	2	..	1	*	*	5
Plague	..	..	..	..	..	..	..	..	..
Poliomyelitis	789	202	106	972	59	51	..	27	2,206
Puerperal Fever	14	7	19	26	2	3	2	..	73
Rubella	*	*	6	*	45	14	*	19	84
Salmonella infection	*	*	*	*	6	*	*	*	6
Scarlet Fever	1,046	917	446	456	198	123	4	18	3,208
Smallpox	..	..	..	..	..	..	..	..	..
Tetanus	*	12	35	*	11	*	*	*	58
Trachoma	*	..	*	*	*	*	*	..	..
Trichinosis	*	*	*	..	*	*	*	*	..
Tuberculosis	1,787	836	594	362	604	231	69	8	4,491
Typhoid Fever	16	18	9	4	7	9	..	..	63
Typhus endemic (*a*)	21	1	53	7	32	..	..	..	114
Yellow Fever	..	..	..	..	..	..	..	..	..

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* Not notifiable. † Victorian and Western Australian cases of Anchylostomiasis were ex-service personnel infected overseas. ‡ Diarrhoea of more than 48 hours' duration in infants under two years of age became notifiable in Queensland on 26th March, 1949; infantile diarrhoea became notifiable in Western Australia on 31st March, 1949. § Hydatid became notifiable in Tasmania on 12th January, 1949. ‖ Rubella in females over 14 years of age become notifiable in Queensland on 17th September, 1949 and in Tasmania rubella was made notifiable on 9th November, 1949. ¶ Salmonella infection became notifiable in Western Australia on 31st March, 1949.

(*a*) Cases reported include flea-borne, tick-borne and mite-borne typhus.

(ii) *Venereal Diseases.* (*a*) *General.* The prevention and control of venereal diseases are undertaken by the States. Each State has a Venereal Diseases Act, or provisions in the Health Act govern the working of the measures taken to combat these diseases. Under these Acts notification has been made compulsory in every State. Steps have been taken to ensure free treatment by medical practitioners or in subsidized hospitals and clinics. Registered pharmaceutical chemists are allowed to dispense prescriptions only when signed by medical practitioners. Clinics have been established and, in some cases, beds in public hospitals have been set aside for patients suffering from these diseases.

Penalties may be imposed on a patient who fails to continue under treatment. Clauses are inserted in the Acts which aim at preventing the marriage of any infected person and the employment of an infected person in the manufacture or distribution of foodstuffs.

For several years the Commonwealth Government granted a subsidy to each of the States to assist in providing hospital treatment and administrative control of venereal diseases, but this subsidy has been discontinued.

In 1927 a Division of Tuberculosis and Venereal Disease was established in the Commonwealth Department of Health, with a medical officer as Director. This Division ceased to exist in April, 1932.

(*b*) *Details by States.* A statement of the preventive provisions in each State, together with certain statistical data, appeared in earlier issues of the Official Year Book (*see* No. 22, pp. 503–4).

4. **Vaccination.**—(i) *Demand for Vaccination.* There is statutory provision for compulsory vaccination in all States except New South Wales. Jennerian vaccine for vaccination against small-pox is prepared at the Commonwealth Serum Laboratories in Melbourne. There has been a considerable increase in the demand for vaccination, especially by people about to travel overseas by air, so that they may conform with the quarantine requirements of countries to which they are travelling.

(ii) *Details by States.* In earlier issues of the Official Year Book (*see* No. 22, pp. 504–5) information was given concerning the provisions regarding vaccination in each State.

§ 5. Inspection and Sale of Food and Drugs.

Public Health legislation in force in all States provides for the inspection of foods and drugs with the object of ensuring that all those goods which are sold shall be wholesome, clean and free from contamination or adulteration ; and that all receptacles, places and vehicles used for their manufacture, storage or carriage shall be clean. For further particulars in this connexion *see* § 1. State Public Health Legislation and Administration, pp. 276–80.

§ 6. Supervision of Dairies, Milk Supply, Etc.

1. **General.**—In earlier issues of the Official Year Book (*see* No. 22, p. 498) reference is made to the legislation in force in the various States to ensure the purity of the milk supply and of dairy produce generally.

2. **Number of Dairy Premises Registered.**—The following table shows, so far as the particulars are available, the number of dairy premises registered and the number of cows in milk thereon. In some States registration is compulsory within certain proclaimed areas only.

DAIRY PREMISES REGISTERED, AND COWS IN MILK THEREON, 1950.

Particulars.	N.S.W.	Victoria. (*a*)	Q'land.	S. Aust.	W. Aust. (*b*)	Tasmania. (*c*)
Premises registered ..	16,965	25,783	21,800	12,311	496	7,356
Cows in milk thereon ..	c587,735	669,976	690,200	113,000	18,034	87,655

(*a*) Year 1948. (*b*) Dairy farms registered with the Milk Board for whole milk for Metropolitan Area and country towns. (*c*) March, 1950.

§ 7. Medical Inspection of School Children.

1. **General.**—Medical inspection of school children is carried out in all the States and the Australian Capital Territory. Medical staffs have been organized, and in some States travelling clinics have been established to deal with dental and ocular defects.

2. **New South Wales.**—A complete system of medical inspection of school children is carried out by the School Medical Service, Department of Public Health. In the metropolitan area a full medical examination of all children in first and fifth classes is carried out and children in other classes are reviewed as necessary. In country districts, a full medical examination of every child is carried out two or three times during the usual period of school attendance (6–15 years). Parents are notified of the defects found, and urged to seek treatment for them. In the metropolitan area these notices are followed up in many cases by a visit from a school nurse who, in some instances, assists in arranging hospital and clinical treatment.

At the end of 1950 the establishment of the School Medical Service provided for 31 medical officers (including the Director, Deputy Director and 4 psychiatrists), 4 psychologists, 4 social workers, 19 school nurses, and 4 speech therapists. In the metropolitan area all primary schools are visited once each year.

Special attention is paid to the supervision of high school pupils, both girls and boys, and medical inspection is carried out annually in these schools in the metropolitan area, as well as certain country high schools. However, it is hoped in 1951 to carry out medical inspection of all schools, both primary and secondary, in the metropolitan area. This will be possible only if the establishment for medical officers is filled.

Every student, before entering a Teachers' College, is medically examined and X-rayed and any defects found must be remedied before final acceptance. Health supervision is maintained at these colleges by women medical officers, who are also lecturers to their respective colleges in hygiene and physiology.

The Child Guidance Clinics examine free of charge children referred by school medical officers, teachers, officers of the Child Welfare Department and various outside bodies. Boys coming before the Children's Court are examined at the clinic at the Metropolitan Boys' Shelter attached to the Court and at Yasmar Hostel for Boys. Girl delinquents are examined at the two clinics at Blackfriars.

The medical examination of certain children under the jurisdiction of the Child Welfare Department and the Widows' Pensions Branch is also carried out by medical officers of this service.

During the year an audiometric survey by school nurses was commenced of children in the metropolitan, Wollongong and Newcastle areas to determine those who suffered from impairment of hearing. Those children who showed a loss of hearing were examined by a part-time Ear, Nose and Throat Surgeon Specialist, either at school or at the Deaf Clinic, established at Head Office. Recommendations with regard to the children were made to the Education Department as to the most suitable method of education, and through liaison with the Commonwealth Acoustic Laboratory a number of children were fitted with hearing aids free of cost.

During 1950, 73,718 children were fully examined (routine inspection) in schools and 19,551 were reviewed. Of those fully examined 40.04 per cent. were notified for medical and/or dental defects.

These figures do not include record of the medical examination and health supervision of children (1) in residence at the Glenfield Special School for backward children, and (2) attending the Department's Nursery Schools.

The School Medical Service carries out regular and/or periodical investigations into problems affecting the health of children, and special investigations into outbreaks of infectious diseases occurring in schools. One special survey carried out during 1950 was an anthropometric survey of samples of school children to assist the Education Department to design new school furniture. The sanitary condition of school buildings is also inspected. One medical officer attached to this service was included on the panel of lecturers to parents' groups on sex education of children.

The foregoing statement does not include record of the numerous medical examinations of teachers, and other Departmental work of a medical nature, done by the School Medical Service.

3. **Victoria.**—Medical inspection of school children was established in 1909, one of the objectives being to examine medically each child in the State three times during his or her school life.

The School Medical and School Dental Services were transferred in 1944 from the Education Department to the Department of Health under the Ministry of Health Act 1943.

At the routine inspection each child is weighed and measured, eyesight and hearing tested and defects of teeth, throat, skin and posture noted. The child is questioned and advised concerning general hygiene, cleanliness, etc., and is then undressed and examined. A school nurse assists each medical officer at the examination and is also responsible for the sending of defect notices to the parent. In many cases she also interviews the mother either at the school or in the home, thus acting as liaison between medical officer, parent and teacher. School nurses also visit metropolitan schools at regular intervals to examine for pediculosis, other infectious skin conditions, and lack of cleanliness.

Special classes or schools are provided by the Education Department for physically and mentally handicapped children, such as the partially sighted, partially deaf (in process of building), undernourished, those with minor postural defects, speech handicaps, mentally retarded, etc. Children attending these classes are referred by the School Medical Officers and kept under regular medical supervision during their school career. Many children are given special appointments on account of behaviour problems, truancy, etc. These cases are also investigated by a school nurse, and, if necessary, sent on to the appropriate psychiatric clinic. Visits to state schools within the metropolitan area are maintained regularly. Extension of the service to children attending registered primary schools in metropolitan districts and country areas as medical staff became available was agreed upon in April, 1950, and these schools are now included in the regular itineraries.

Country schools are gradually being included in regular inspection. A part-time medical officer for the provincial centre of Hamilton took up duty in August, 1949, and it is hoped to interest in this work, in other centres, medical women who are not engaged in private practice. Meanwhile, owing to a small increase in staff it has been possible to visit schools in the district of Glenelg in the far south-west of the State. Additional school nurses were appointed during the latter half of 1950, and regular visits are now being made to schools in the provincial cities, Bendigo, Ballarat and Geelong.

A limited number of metropolitan (industrial areas) and rural schools are covered by the School Dental Service, but owing to difficulties in obtaining staff it has not been possible to maintain the desired policy of providing dental treatment at regular yearly intervals with initial treatment at a maximum age of eight years. Children are transported from school to the Dental Centre and return by bus (under contract to the Department of Health). A medical officer has been appointed as part-time anaesthetist, part-time school medical officer. A new building has been purchased at 448 St. Kilda-road, to which the Dental Centre was transferred in January, 1951.

During the year ended 30th June, 1950, 28,621 children and 3,558 teachers were medically examined, and 16,539 children received dental treatment involving 20,766 visits with 21,842 extractions, 17,506 fillings and 7,614 other treatments. General anaesthetics numbering 543 were administered. The cost of the School Medical and Dental Services for 1949–50 was £36,025.

4. **Queensland.**—The School Health Services Branch, under the direction of the Chief Medical Officer, consists of three sections known as the Medical, Dental and Nursing Sections.

Medical inspection of schools and school children is carried out by two full-time and one part-time officer under the general direction of the Chief Medical Officer, School Health Services. These officers, as far as possible, examine children for cardiac and pulmonary conditions, and in addition make a thorough examination of all children referred to them by the school nurses.

The nurses now number 16. Each nurse is assigned a group of schools and is instructed to make a list at each school of those children who should be seen by the medical inspector at his next visit. She supervises the sanitation, cleanliness and ventilation of the school and notifies the head teacher of all infectious or verminous children or those suffering from impetigo, scabies, etc., who are then excluded. During 1949–50, school nurses examined 62,649 children. In the metropolitan area the nurses examine the teeth and report all eligible carious cases to the Dental Hospital for treatment.

The Department now has a staff of 21 dentists, and one part-time dental inspector. These officers are each assigned a district, which is not changed for three years unless for reasons which the Chief Medical Officer, on the recommendation of the Chief Dental Inspector, considers advisable. During 1949–50, 34,846 children were examined; 17,098 extractions were performed; and there were 72,568 fillings and 23,594 other treatments.

In order to give the same medical and dental facilities to the children of the back country as are obtainable by city dwellers, four Rail Dental Clinics equipped on the most modern lines have been constructed. A motor car is carried on a railway wagon attached to each clinic for use at each stopping place to visit the surrounding villages served by the rail centre.

At the Wilson Ophthalmic School Hostel children suffering from trachoma are treated and educated. They are admitted from time to time on the recommendation of the part-time Ophthalmic Officer. Beneficial results have already been obtained. The Institution is situated at Eildon Hill, Windsor, and is fully equipped to treat all types of eye cases.

The work of Hookworm Control (the dealing with anchylostomiasis duodenale and necator Americanus infestation) throughout the State is under the control of the Director-General of Medical Services and his deputy. This activity has resulted in a marked reduction of the incidence of this dangerous menace on the northern coastal belt. Two sisters of the School Health Services are seconded for hookworm duty. The personnel consists of a microscopist, a health inspector and two trained sisters.

This service cost £48,690 in 1949–50.

5. **South Australia.**—The system of medical inspection in force requires the examination of all children attending both primary and secondary schools. As a rule they are examined three times during their primary course in Grades I., IV. and VII., and twice during their secondary course in the 2nd and 4th years. Country schools are not visited annually because of staff shortage, but approximately every three or four years. On these visits all the children are examined. Reports are furnished to the parents of any remediable defects found during these examinations. The medical inspectors meet the parents after the examination of the children and give an address on the prevention and treatment of the conditions which were found during the inspection. After these lectures the parents are given an opportunity to ask questions regarding their children. When there is an epidemic or a threatened epidemic in a district, similar lectures are given and special visits paid to all the schools in that locality. All students are examined before they enter the Teachers' College and before they begin teaching. Medical and physiological tests are conducted four times during the course (two years) on all candidates taking the Diploma of Physical Education. Courses of lectures in Hygiene and in First Aid are given to all College students and in Home Nursing to Domestic Arts students.

The medical staff consists of a principal medical officer, 3 full-time and 2 part-time medical inspectors and 5 trained nurses. Two dentists and 2 dental assistants are responsible for dental work in country schools.

The more important defects of the 22,079 children examined during 1950 were as follows:—Vision 525, hearing 147, and tonsils and adenoids 744.

No survey of children wearing spectacles was made in 1949. In 1950 the proportions per cent. of boys and of girls in primary schools who were wearing spectacles at the time of the medical examination were as follows :—Grade 1—boys 1.4, girls 1.4 ; Grade 2—2.5, 3.3 ; Grade 3—3.1, 4.4 ; Grade 4—3.5, 4.6 ; Grade 5—4.1, 4.4 ; Grade 6—5.1, 5.0 ; and Grade 7—4.0, 5.3.

Of the 5,999 children tested for hearing with a pure tone audiometer, 3,619 showed no hearing loss.

The Psychology Branch consists of a psychologist, two assistant psychologists, one senior guidance officer, two guidance officers, a social worker, an advisory teacher of opportunity classes and a special teacher of hard of hearing children. The work of the Branch may be divided into three sections—clinical, educational and vocational.

Clinical. The clinical work involves examining difficult children of many types, including those with such problems as backwardness, retardation, truanting, delinquency, etc. In addition, the parents of all children examined are always interviewed and their co-operation is sought.

Educational. In addition to supervising 36 opportunity and special classes for children backward in school work, the Branch advises on questions of placement and types of education for ordinary children in schools.

Vocational. The guidance officers test and advise all children about to leave school. The guidance officers are also responsible for the supervision of record cards where used in primary schools.

The Branch also undertakes lectures to students of the Teachers' College as well as to other interested organizations such as mothers' clubs.

The cost of these services combined in 1949–50 was £14,435.

6. **Western Australia.**—Under the Public Health Act 1911–1935 the medical officers appointed by the local authorities became medical officers of schools and of school children. The principle aimed at is—

(*a*) in the metropolitan area, that each child shall be examined three times during his school life—
  (i) when he enters school between 5 and 6 years,
  (ii) in his eighth year, and
  (iii) between the ages of 12 and 13 years ;
(*b*) in the country, that the child is examined twice during his school life, or more often if it is possible to arrange such medical examinations.

In the Health Department there are 2 full-time and 6 part-time medical officers for schools. One full-time medical officer and three half-time officers are employed in the country, and one full-time officer and three half-time officers are employed in the metropolitan area. During 1950, 39,023 children were examined (metropolitan 18,303, country 20,524, and summer camp classes 196), of whom 20,250 were boys and 18,773 girls. There were 357 schools visited, comprising—metropolitan, 74 State schools and 15 convents and country, 222 State schools and 46 convents. During 1950 the 11 full-time dental officers employed visited 29 metropolitan schools, and in five dental vans visited 135 country schools ; the number of children examined was 7,858 of whom 4,913 were treated with parents' consent.

The cost of this service for 1949–50 was £19,817.

7. **Tasmania.**—During the year 1950 one full-time medical officer and two part-time officers were employed in the examination of school children. Six Government medical officers also performed routine examinations as part of their ordinary duties. Nine full-time and one part-time sister visit homes and schools regularly. In all, 13,925 children were examined, of whom 8,559 were found to have defects.

There are now three dental clinics—one at Hobart, another at Launceston and the third at Devonport—each with a full-time dental surgeon in charge. Three other dentists were employed for varying periods during the year, and the department paid four private dentists to do work in various areas. The mobile clinic is still operating along the north-west coast. There were 6,170 new visits paid to dental clinics in Tasmania and 5,229 repeat visits.

The cost of medical and dental services for the year ended June, 1950 was £13,498.

8. **Australian Capital Territory.**—By arrangement, education facilities are provided by the Education Department of New South Wales. The Commonwealth Department of Health, however, took over from the State in 1930 the medical inspection of school children and carried out examinations of entrants and those leaving during 1930.

Subsequently to 1931, examinations of entrants and those leaving the primary schools have taken place. During 1937 this examination was supplemented by examinations of all pupils of all rural schools (including Duntroon and Molonglo). No examinations were made in 1942. Since 1943 all primary pupils of Government schools in the Territory have been medically examined annually. During 1950 a total of 1,420 children were examined, comprising 732 boys and 688 girls. Defects found were—nose and throat, 94 or 6.6 per cent.; eye defects notified, 52 or 3.6 per cent.; hearing defects, 29 or 2 per cent.; nutrition unsatisfactory, 138 or 9.7 per cent. Dental defects were not recorded because school dental clinics were supervising most of the children examined.

§ 8. Supervision and Care of Infant Life.

1. **General.**—The number of infant deaths and the rate of infant mortality for the five years 1946 to 1950 are given in the following table, which shows that during this period no less than 24,385 children died in Australia (excluding Territories) before reaching their first birthday. Further information regarding infant mortality will be found in Chapter XIV.—Vital Statistics :—

INFANT DEATHS AND DEATH RATES.

State.	Metropolitan.					Remainder of State.				
	1946.	1947.	1948.	1949.	1950.	1946.	1947.	1948.	1949.	1950.
NUMBER OF INFANT DEATHS.										
New South Wales	786	856	810	754	754	1,246	1,213	1,227	1,124	1,182
Victoria ..	730	725	605	518	511	538	520	498	508	490
Queensland ..	251	353	293	210	232	540	521	486	476	487
South Australia ..	256	192	256	233	235	172	204	216	211	181
Western Australia	160	181	150	149	180	216	217	181	208	206
Tasmania ..	58	66	46	53	52	149	129	147	117	120
Australia(*a*) ..	2,241	2,373	2,160	1,917	1,964	2,861	2,804	2,755	2,644	2,666
RATE OF INFANT MORTALITY.(*b*)										
New South Wales	24.74	26.82	26.96	25.19	25.44	35.12	32.36	33.00	28.91	28.18
Victoria ..	27.07	26.82	23.77	19.97	19.13	27.27	25.57	24.12	24.27	21.20
Queensland ..	25.65	34.59	29.94	21.38	31.98	31.33	28.70	28.47	26.55	22.37
South Australia ..	27.89	20.73	28.79	26.11	24.68	25.93	28.91	30.96	29.64	23.25
Western Australia	25.01	26.99	23.59	21.52	25.41	37.84	35.18	28.78	31.57	28.83
Tasmania ..	29.59	31.52	22.32	26.21	23.29	30.49	25.56	29.89	23.00	23.96
Australia(*a*) ..	26.04	27.21	26.06	22.94	23.82	31.90	29.75	29.60	27.39	24.97

(*a*) Excludes Territories.

(*b*) Number of deaths under one year of age per 1,000 live births registered.

During recent years greater attention has been paid to the fact that the health of the community depends largely on pre-natal, as well as after-care, in the case of mothers and infants. Government and private organizations, therefore, provide instruction and treatment for mothers before and after confinement, while the health and well-being of mother and child are looked after by the institution of baby health centres, baby clinics, crèches, visits by qualified midwifery nurses, and special attention to the milk supply, etc.

2. **Government Activities.**—In all the States acts have been passed with the object of supervising and ameliorating the conditions of infant life and reducing the rate of mortality. Departments control the boarding-out to suitable persons of the wards of the State, and wherever possible the child is boarded out to its mother or near female relative. Stringent conditions regulate the adoption, nursing and maintenance of children placed in foster-homes by private persons, while special attention is devoted to the welfare of ex-nuptial children. (*See also* in this connexion Chapter IX.—Welfare Services.) Under the provisions of the Maternity Allowances, Part V. of the Social Services Consolidation Act 1947–1951, from 1st July, 1947 a sum of £15 is payable to the mother in respect of each confinement at which a living or viable child is born. Where there are one or two other children under 16 the amount payable is £16, and where there are three or more other children under 16 the amount payable is £17 10s. Where more than one child is born at a birth the amount of the allowance is increased by £5 in respect of each additional child born at that birth. Detailed particulars regarding Maternity Allowances are given in Chapter IX.—Welfare Services.

3. **Nursing Activities.**—(i) *General.* In several of the States the Government maintains institutions which provide treatment for mothers and children, and, in addition, subsidies are granted to various associations engaged in welfare work.

(ii) *Details by States.* In earlier issues of the Official Year Book (*see* No. 22, pp. 515–6) information may be found concerning the activities of institutions in each State.

(iii) *Summary.* The following table gives particulars of the activities of Baby Health Centres and Bush Nursing Associations :—

BABY HEALTH CENTRES AND BUSH NURSING ASSOCIATIONS, 1950.

Heading.	N.S.W.	Victoria.	Qld. (*a*)	S. Aust.	W. Aust.	Tas.	A.C.T.	Total.
Baby Health Centres—								
Metropolitan .. No.	76	124	45	72	24	7	..	348
Urban-Provincial and Rural .. No.	202	(*b*) 324	155	156	21	(*c*) 67	4	929
Total .. No.	278	448	200	228	45	74	4	1,277
Attendances at Centres No.	1,072,174	1,005,996	382,227	250,097	188,322	130,900	10,599	3,049,375
Visits paid by Nurses No.	19,424	91,969	23,658	29,716	20,301	48,962	2,573	236,603
Bush Nursing Associations —Number of Centres ..	32	79	10	31	7	26	..	185

(*a*) Year ended 30th June, 1950. (*b*) Includes five mobile units. (*c*) Includes four mobile units.

In the last twenty years the number of attendances at the Baby Health Centres has more than trebled. The numbers of attendances, at five-yearly intervals, since 1930 were as follows :—1930, 919,893 ; 1935, 1,355,306 ; 1940, 2,035,299 ; 1945, 2,927,764 ; 1950, 3,049,375.

§ 9. Hospital Benefits Act.

Under the Hospital Benefits Act 1945–1948 the Commonwealth has entered into agreements with the States to pay to the States hospital benefits at an agreed rate for each bed occupied by a qualified person in a public ward in a public hospital, provided that the States abolish the means test for admission into public wards and cease charging fees to qualified persons admitted thereto. The benefit rate for public wards, which was six shillings per day until 30th June, 1948, was increased to eight shillings per day from 1st July, 1948. For dates of operation and payments made in the several States *see* page 302.

The agreements provide for the Commonwealth to pay benefits towards the cost of treatment of qualified persons occupying beds in non-public wards in public hospitals, and for the State Governments to reduce the hospital fees by the equivalent of the benefit rate, thus relieving qualified persons of fees to this extent. The benefit rate for non-public wards which was six shillings per day until 31st October, 1948, was increased to eight shillings per day from 1st November, 1948.

Private hospitals are entitled to claim benefits for beds occupied by qualified patients. These hospitals must be approved by a joint committee of Commonwealth and State Health authorities before payment of benefit is made. The hospitals are required to reduce each qualified patient's account by the amount of the benefit payable by the Commonwealth. The benefit rate for private hospitals which was six shillings per day until 31st October, 1948, was increased to eight shillings per day from 1st November, 1948.

Hospital benefits are payable also to, or in respect of, any person who, whilst temporarily absent from Australia, has been a qualified patient in a hospital in any country outside Australia. The benefit rate for persons temporarily absent from Australia which was six shillings (Australian currency) per day until 31st October, 1948, was increased to eight shillings (Australian currency) per day from 1st November, 1948. Arrangements have been made for these benefits to be paid in several countries overseas where Commonwealth Officers are established. Any claims not dealt with overseas receive attention in Australia.

The Commonwealth and States have agreed to form a National Hospital Council of Commonwealth and State representatives, the functions of which will be to advise the Commonwealth and State Governments on any hospital matters referred to it by their Governments.

§ 10. Mental Institution Benefits Act.

The Mental Institution Benefits Act was assented to on 17th December, 1948. It authorizes the execution, on behalf of the Commonwealth, of agreements with all or any of the States relating to the provision of mental institution benefits.

These agreements will provide for the Commonwealth to pay to the States, in respect of qualified persons in mental institutions, benefits at an agreed rate per patient-day, and for the States to ensure that no means test is imposed on, and that no fees are charged to, or in respect of, qualified persons.

§ 11. Tuberculosis Act.

The main provisions of this Act, which was assented to on 25th November, 1948, are as follows :—(*a*) Section 5, which authorizes the Commonwealth to enter into an arrangement with the States for an effectual national campaign against tuberculosis ; (*b*) Section 6, which empowers the Commonwealth to take over or provide specified facilities for the diagnosis, treatment and control of tuberculosis ; (*c*) Section 8, which provides for the setting up of an Advisory Council to advise the Commonwealth Minister for Health on matters relating to the national campaign ; and (*d*) Section 9, which authorizes the Commonwealth to pay allowances to sufferers from tuberculosis and their dependants to enable sufferers to give up work and undergo treatment, and thus minimize the spread of infection.

The Commonwealth has completed an arrangement with each State, and the National campaign is already under way. Under the arrangement each State is required to conduct an effectual campaign against tuberculosis and to provide adequate facilities for that purpose. In consideration of this, the Commonwealth undertakes to reimburse the State for all approved capital expenditure in relation to tuberculosis on and after 1st July, 1948, and for net maintenance expenditure to the extent it is in excess of net maintenance expenditure for the base year 1947–48. Thus, the States are required to carry out the actual physical or field work of the national campaign with the Commonwealth acting in an advisory, co-ordinating and financial capacity. For this reason, the Commonwealth has not found it necessary to make much use of its powers under Section 6.

An Advisory Council, known as the National Tuberculosis Advisory Council, has been set up and has already had three meetings. There are eleven members under the chairmanship of the Commonwealth Director-General of Health. The members are the Commonwealth Director of Tuberculosis, the six State Directors of Tuberculosis, the Consultant (Chest Diseases) of the Department of Repatriation, two specialist private practitioners, and the Chief Administrative Officer of the Commonwealth Department of Health.

A system of tuberculosis allowances has been drawn up and is an important factor in the campaign against the disease. Payments under the scheme were commenced on 13th July, 1950. The rates of allowance from 1st November, 1951 were £8 5s. a week for a married sufferer with a dependent wife, £5 a week for a sufferer without dependants (reducible to £3 when maintained free of charge in an institution), and 9s. a week for each dependent child under the age of sixteen (which is additional to child endowment). There is a means test, generous to the sufferer, which has regard only to income and not to property.

§ 12. Pharmaceutical Benefits Act.

A Pharmaceutical Benefits Act was passed by the Commonwealth Parliament in March, 1944 and was amended in September, 1945. This Act was the subject of a High Court action, as a result of which the Government sought by means of a referendum of the people the constitutional power necessary to implement the Act. This power having been granted, a further Pharmaceutical Benefits Act, which repealed the Acts of 1944 and 1945, was assented to on 12th June, 1947. This Act embodied a scheme for providing pharmaceutical benefits to all persons ordinarily resident in Australia. The benefits provided were contained in a Commonwealth Pharmaceutical Formulary, which was subject to periodic revision by a Formulary Committee comprised of members of the medical and pharmaceutical professions. Benefits were supplied without cost to the person receiving the benefit, payment being made by the Commonwealth to authorized suppliers from the National Welfare Fund. Special arrangements existed for supplying benefits or their equivalent to persons residing in isolated areas. These pharmaceutical benefits were first made available to the public on 1st June, 1948. In August, 1950, the Government amended the regulations under the Act, thereby limiting the range of benefits to a list of life-saving and disease-preventing drugs compiled on the recommendation of a special Medical Advisory Committee. These regulations came into force on 4th September, 1950.

§ 13. Disposal of the Dead by Cremation.

The disposal of the dead by cremation has been in existence in Australia for many years, as the first crematorium was opened in South Australia in 1903. The number of crematoria in New South Wales is five; the first was opened in 1925. There are two crematoria in Victoria; the first crematorium opened in 1905, but was closed in 1926 and re-opened in 1936, while the other one was opened in 1927. There are two crematoria in Queensland, the first being opened in 1934. In South Australia there is one crematorium which opened in 1903. In Western Australia there is one crematorium which opened in 1939. In Tasmania there are two crematoria; the first was opened in 1936.

The following table shows the number of cremations in each State for the years 1940 to 1951 :—

CREMATIONS.

Year.	N.S.W.	Victoria.	Q'land.(*a*)	S. Aust.(*a*)	W. Aust.	Tas.	Australia.
1940	4,605	1,624	892	109	242	167	7,639
1941	5,081	1,826	1,063	137	302	210	8,619
1942	5,630	1,999	1,183	135	348	244	9,539
1943	6,312	2,198	1,344	142	376	272	10,644
1944	6,132	2,394	1,482	145	389	333	10,875
1945	6,418	2,604	1,481	167	479	325	11,474
1946	7,054	2,950	1,593	155	504	328	12,584
1947	7,443	3,162	1,742	176	527	355	13,405
1948	8,273	3,642	1,925	214	627	434	15,115
1949	8,591	4,157	2,010	231	610	406	16,005
1950	9,170	4,425	2,155	225	726	421	17,122
1951	9,815	4,808	2,377	280	874	485	18,639

(*a*) Year ended 30th June.

B. INSTITUTIONS.

§ 1. General.

In Australia, institutions related to public health may be classified in three groups : (*a*) State ; (*b*) public ; and (*c*) private. To the first group belong those institutions wholly provided for by the State, such as the principal mental hospitals in the various States and the Government and leased hospitals in Western Australia. To the second group belong public institutions of two kinds, namely :—(i) those partially subsidized by the State or by State endowments for maintenance, but receiving also private aid, and (ii) those wholly dependent upon private aid. To the first of these two kinds belong such institutions as the principal metropolitan hospitals ; in the second are included institutions established and endowed by individuals for the benefit of the needy generally. All institutions of a private character are included in the third group. A more or less accurate statistical account is possible in classes (*a*) and (*b*), but in regard to (*c*) general tabulation is, for obvious reasons, impossible. Owing to differences in the dates of collection and tabulation it is impossible to bring statistics of some charitable institutions to a common year.

§ 2. Public Hospitals (other than Mental Hospitals).

1. **General.**—All the State capitals have several large and well-equipped hospitals, and there is at least one in every important town. In large centres there are hospitals for infectious diseases, tubercular patients, women, children, incurables, etc.

The particulars given herein refer to public hospitals at the latest available date and include all institutions affording hospital relief, whether general or special, with the exception of mental hospitals, repatriation hospitals and private hospitals conducted commercially. The particulars for New South Wales in the following tables relate to hospitals operating under the control of the Hospitals Commission.

2. **Principal Hospitals in each State.**—In earlier issues of the Official Year Book (*see* No. 22, pp. 481–2) particulars respecting staff, accommodation, etc., of each of the principal hospitals were given.

3. **Number, Staff and Accommodation, 1949–50.**—Details regarding the number of hospitals, staffs and accommodation for the year 1949–50 are given in the following table :—

PUBLIC HOSPITALS : NUMBER, STAFF AND ACCOMMODATION, 1949-50.

Particulars.	N.S.W.	Vic.(*a*)	Q'land.	S. Aust.	W. Aust.	Tas.	A.C.T.	Total.
Number of Hospitals ..	251	94	126	59	92	25	1	648
Medical Staff—								
Honorary	2,556	1,096	141	323	163	117	18	4,414
Salaried	508	395	362	114	51	69	4	1,503
Total	3,064	1,491	503	437	214	186	22	5,917
Nursing Staff	8,706	5,048	4,236	1,690	1,730	759	66	22,235
Accommodation— Number of beds and cots	18,257	9,851	7,995	3,336	3,904	1,942	184	45,559

(*a*) Year ended 31st March, 1950.

The figures for accommodation shown in the table above include particulars, where available, of a considerable number of beds and cots for certain classes of cases in out-door or verandah sleeping places.

4. **In-Patients Treated.**—The following table furnishes particulars of in-patients treated (newborn are excluded).

PUBLIC HOSPITALS : IN-PATIENTS TREATED, 1949-50.

Particulars.	N.S.W.	Vic.(*a*)	Q'land.	S.Aust.	W.A.	Tas.	A.C.T.	Total.
Inmates at beginning of year—								
Males	5,413	6,678	2,851	1,018	1,141	494	58	30,696
Females	6,813		2,897	1,315	1,240	701	77	
Total	12,226	6,678	5,748	2,333	2,381	1,195	135	30,696
Admissions and Re-admissions during year—								
Males	134,423	151,263	72,854	22,353	31,669	11,769	1,761	792,699
Females	197,348		84,631	29,648	33,433	18,877	2,670	
Total	331,771	151,263	157,485	52,001	65,102	30,646	4,431	792,699
Total in-patients treated—								
Males	139,836	157,941	75,705	23,371	32,810	12,263	1,819	823,395
Females	204,161		87,528	30,963	34,673	19,578	2,747	
Total	343,997	157,941	163,233	54,334	67,483	31,841	4,566	823,395
Discharges—								
Males	127,849	144,442	69,865	21,090	30,272	11,279	1,717	763,607
Females	192,230		82,488	28,676	32,590	18,481	2,628	
Total	320,079	144,442	152,353	49,766	62,862	29,760	4,345	763,607
Deaths—								
Males	6,124	6,616	2,926	1,291	1,280	503	44	27,057
Females	4,286		1,908	906	726	416	31	
Total	10,410	6,616	4,834	2,197	2,006	919	75	27,057
Inmates at end of year—								
Males	5,863	6,883	2,914	990	1,258	481	58	32,731
Females	7,645		3,132	1,381	1,357	681	88	
Total	13,508	6,883	6,046	2,371	2,615	1,162	146	32,731
Average Daily Number Resident	13,016	6,982	5,774	2,305	2,445	1,227	136	31,885

(*a*) Year ended 31st March, 1950, and includes private and intermediate patients previously excluded.

In addition to those admitted to the hospitals there are large numbers of out-patients. During 1949–50 there were 927,450 out-patients treated in New South Wales, 404,743 in Victoria, 438,694 in Queensland, 102,055 in South Australia, 69,804 (estimated) in Western Australia, 80,444 in Tasmania and 11,028 in the Australian Capital Territory, making a total for Australia of 2,034,317.

5. **Revenue and Expenditure.**—Details of the revenue and expenditure for the year 1949–50 are shown in the next table. The revenue includes the Commonwealth Hospital Benefit Scheme which operated in Victoria, Queensland, Western Australia and Tasmania from 1st January, 1946, in South Australia from 1st February, 1946, and in New South Wales and the Australian Capital Territory from 1st July, 1946.

PUBLIC HOSPITALS: REVENUE AND EXPENDITURE, 1949–50.

(£.)

Particulars.	N.S.W.	Vic. (a)	Q'land.	S. Aust.	W. Aust.	Tas.	A.C.T.	Total.
Revenue—								
Government Aid ..	7,247,828	3,257,056	2,885,602	1,054,536	1,504,427	570,761	79,094	16,599,304
Commonwealth Hospital Benefits ..	(b) 777,764	1,043,000	898,377	336,672	301,501	173,707	22,288	3,553,309
Municipal Aid ..	(c)	75,751	..	69,155	1,293	..	..	146,199
Public Subscriptions, Legacies, etc.	169,512	639,625	7,007	81,883	70,081	6,027	8	974,143
Fees	1,488,127	820,571	308,821	199,268	137,722	85,007	6,889	3,046,405
Other	207,194	183,337	37,241	117,961	23,769	54,639	90	624,231
Total 1949–50 ..	9,890,425	6,019,340	4,137,048	1,859,475	2,038,793	890,141	108,369	24,943,591
1948–49 ..	8,423,459	3,503,346	3,611,116	1,532,339	1,579,258	736,336	79,604	19,465,458
Expenditure—								
Salaries and Wages	6,087,401	2,686,708	2,357,259	974,561	922,761	524,925	51,570	13,605,185
Upkeep and Repair of Buildings and Grounds ..	457,460	165,172	103,721	120,282	71,053	16,045	4,554	938,287
All Other Ordinary	3,394,413	2,213,113	1,710,441	677,499	674,124	336,011	36,204	9,041,805
Capital (d) ..	(e)	1,392,410	782,999	134,224	294,139	..	16,145	f2,619,917
Total 1949–50 ..	9,939,274	6,457,403	4,954,420	1,906,566	1,962,077	876,981	108,473	26,205,194
1948–49 ..	8,585,591	3,954,252	4,122,121	1,598,260	1,585,896	735,376	79,779	20,661,275

(a) Year ended 31st March, 1950. (b) Portion only of amount allocated to State hospitals. (c) Included in "Other". (d) Includes such items as Purchases of Land, Cost of New Buildings and Additions to Buildings. (e) Not available. (f) Incomplete.

6. **Summary, 1938–39 and 1946–47 to 1949–50.**—A summary, for the years 1938–39 and 1946–47 to 1949–50, of the number of hospitals in Australia, medical and nursing staffs, beds, admissions, in-patients treated, out-patients, deaths, average daily number resident, revenue, and expenditure is given in the following table. The figures relate to both general and special hospitals.

PUBLIC HOSPITALS: AUSTRALIA.

Particulars.		1938–39.	1946–47.	1947–48.	1948–49.	1949–50.
Hospitals ..	No.	563	604	612	624	648
Medical Staff ..	,,	4,059	5,199	5,336	5,476	5,917
Nursing Staff ..	,,	13,582	18,411	20,153	21,360	22,235
Beds and cots ..	,,	35,711	42,601	43,473	44,509	45,559
Admissions during year	,,	527,055	674,957	691,453	700,321	792,699
Total indoor cases treated	No.	552,051	703,488	719,956	730,009	823,395
Out-patients (cases) (a)	,,	1,272,147	1,631,918	1,783,674	1,836,122	2,034,317
Deaths	,,	23,372	24,536	25,046	24,699	27,057
Average daily resident	,,	25,608	28,216	28,554	28,942	31,885
Revenue	£	7,106,642	13,943,052	17,392,541	19,465,458	24,943,591
Expenditure ..	£	6,351,055	14,096,849	17,805,479	20,661,275	26,205,194

(a) Partly estimated.

§ 3. Leper Hospitals.

Isolation hospitals for the care and treatment of lepers have been established in New South Wales (Little Bay); Queensland (Peel Island, near Brisbane, and Fantome Island, North Queensland); Western Australia (Derby); and the Northern Territory (Channel Island, near Darwin). At the end of 1950 there were 20 cases in residence at Little Bay, 54 at Peel Island, 72 at Fantome Island, 305 at Derby, 133 at Channel Island, and 3 cases at Wooroloo, Western Australia. Of the 587 cases, 456 were full-blood aborigines, 51 half-caste aborigines, 4 Asiatics and 76 Europeans.

§ 4. Mental Hospitals.

1. **General.**—The methods of compiling statistics of mental diseases are fairly uniform throughout the States, but there is an element of uncertainty about possible differences in diagnosis in the early stages of the disease. The figures for the States cannot be brought to a common year; consequently the following particulars relate to a combination of calendar and financial years. Licensed houses are included in all particulars excepting revenue and expenditure for New South Wales. The figures exclude those of reception houses and observation wards in gaols. In New South Wales the expenditure includes the cost of Broken Hill patients treated in South Australian mental hospitals.

2. **Hospitals, Staff, etc., 1949–50.**—Particulars regarding the number of hospitals, the medical and nursing staffs, and accommodation are given in the following table for the year 1949–50 :—

MENTAL HOSPITALS : NUMBER, STAFF, ACCOMMODATION, 1949–50.(*a*)

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Total.
Number of Hospitals ..	13	9	4	2	4	1	33
Medical Staff—							
Males	39	56	9	7	5	4	120
Females	7	..	1	..	..	..	8
Total	46	56	10	7	5	4	128
Nursing Staff and Attendants—							
Males	945	622	495	215	188	93	2,558
Females	972	526	297	179	92	70	2,136
Total	1,917	1,148	792	394	280	163	4,694
Accommodation—							
Number of beds and cots	11,854	6,762	4,196	2,317	1,506	762	27,397

(*a*) The figures relate to years ended as follows :—New South Wales, Queensland, South Australia and Tasmania—30th June, 1950; Victoria and Western Australia—31st December, 1949.

3. **Patients, 1949–50.**—Information regarding patients treated, deaths, etc., for 1949–50 is given in the following table :—

MENTAL HOSPITALS : PATIENTS, DEATHS, ETC., 1949–50.(*a*)

Particulars.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Total.
Number of distinct persons treated during year (*b*)—							
Males	6,702	3,756	2,546	1,277	1,053	435	15,769
Females	6,991	4,377	2,374	1,315	690	494	16,241
Total	13,693	8,133	4,920	2,592	1,743	929	32,010

(*a*) *See* footnote (*a*) to previous table. (*b*) Excludes transfers to other institutions.

MENTAL HOSPITALS: PATIENTS, DEATHS, ETC., 1949-50 (*a*)—*continued.*

Particulars.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust	Tas.	Total.
Number of patients on books at beginning of year—							
Males	5,836	3,307	2,111	1,097	929	306	13,586
Females	5,987	3,813	1,957	1,116	608	356	13,837
Total	11,823	7,120	4,068	2,213	1,537	662	27,423
Admissions and re-admissions (excluding absconders retaken and transfers from other hospitals)—							
Males	866	449	435	180	124	129	2,183
Females	1,004	564	417	199	82	138	2,404
Total	1,870	1,013	852	379	206	267	4,587
Discharges (including absconders not retaken)—							
Males	404	222	241	41	38	97	1,043
Females	468	256	271	49	22	93	1,159
Total	872	478	512	90	60	190	2,202
Deaths—							
Males	400	230	143	96	82	17	968
Females	398	222	112	96	54	36	918
Total	798	452	255	192	136	53	1,886
Number of patients on books at end of year—							
Males	5,898	3,304	2,162	1,140	933	321	13,758
Females	6,125	3,899	1,991	1,170	614	365	14,164
Total	12,023	7,203	4,153	2,310	1,547	686	27,922
Average daily number resident—							
Males	5,351	2,922	2,063	1,093	901	314	12,644
Females	5,361	3,383	1,893	1,099	579	360	12,675
Total	10,712	6,305	3,956	2,192	1,480	674	25,319
Number of patients on books at end of year per 1,000 of population—							
Males	3.64	3.08	3.57	3.26	3.33	2.24	3.38
Females	3.82	3.57	3.44	3.34	2.32	2.68	3.52
Total	3.73	3.33	3.51	3.30	2.84	2.46	3.45
Average number of patients resident in mental hospitals per 1,000 of population—							
Males	3.36	2.76	3.46	3.19	3.29	2.21	3.01
Females	3.40	3.13	3.34	3.19	2.23	2.66	3.20
Total	3.38	2.95	3.41	3.19	2.78	2.43	3.18

(*a*) See footnote (*a*) to previous table.

Persons who are well advanced towards recovery are allowed to leave the hospitals and reside with their relatives or friends, but they are under supervision and their names are kept in the records.

4. **Revenue and Expenditure, 1949–50.**—The revenue of Government mental hospitals is small in comparison with their cost, and consists chiefly of patients' fees, and mental institution benefits. The proportion of expenditure borne by the State amounts to about 88 per cent. In New South Wales the expenditure includes the cost of Broken Hill patients treated in South Australian mental hospitals :—

MENTAL HOSPITALS : FINANCES, 1949–50.

(£.)

Particulars.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Total.
Revenue (excluding Government Grants)—							
Fees of Patients ..	174,581	77,543	66,109	18,975	25,676	366	363,250
Mental Institution Benefits	97,035	108,241	..	32,752	8,525	9,033	255,586
Other	63,030	17,038	800	20,693	4,731	277	106,569
Total	334,646	202.822	66,909	72,420	38,932	9,676	725,405
Expenditure—							
Salaries and Wages ..	1,060,100	663,421	424,395	213,816	175,547	104,535	2,641,814
Upkeep and Repair of Buildings, &c. ..	79,738	..	4,700	29,772	11,378	4,838	130,426
All Other(*a*)	1,119,587	1,696,254	326,661	155,585	101,766	66,863	3,466,716
Total	2,259,425	2,359,675	755,756	399,173	288,691	176,236	6,238,956
Expenditure per Average Daily Resident ..	£210/18/6	£374/5/1	£191/0/10	£182/2/1	£195/1/3	£261/9/7	£246/8/3

(*a*) Includes the following amounts for capital expenditure on Purchases of Land, Cost of New Buildings, and Additions to Buildings : New South Wales, £265,441 ; Victoria, £1,123,243 ; South Australia, £6,599.

5. **Summary for Australia, 1938–39 and 1946–47 to 1949–50.**—The following table gives a summary relating to mental hospitals in Australia during 1938–39 and for each of the years 1946–47 to 1949–50 :—

MENTAL HOSPITALS : SUMMARY, AUSTRALIA.

Particulars.		1938–39.	1946–47.	1947–48.	1948–49.	1949–50.
Hospitals	No.	35	33	34	33	33
Medical Staff	"	92	99	108	116	128
Nursing Staff	"	4,922	4,078	4,198	4,487	4,694
Beds	"	25,654	26,984	27,219	27,272	27,397
Admissions	"	3,757	3,925	4,061	4,289	4,587
Discharged as recovered, relieved, etc.	"	1,800	2,150	1,969	2,089	2,202
Deaths	"	1,632	1,888	1,923	1,991	1,886
Inmates at end of year ..	"	26,509	27,045	27,214	27,425	27,922
Revenue (excluding Government Grants)	£	262,817	457,131	508,201	593,601	725,405
Expenditure—Total ..	£	1,903,817	2,893,208	3,575,676	4,484,879	6,238,956
" —Per Average Daily Resident..		£79/2/4	£116/6/11	£143/7/11	£179/11/9	£246/8/3

6. **Number of Mental Patients, 1938–39 and 1946–47 to 1949–50.**—The total number returned as under treatment shows slight fluctuations during the period but the proportion to total population shows a slight decline to 1949–50. A more rational attitude towards the treatment of mental cases has resulted in a greater willingness in recent years to submit afflicted persons to treatment at an early stage, and an increase in the number of recorded cases, therefore, does not necessarily imply an actual increase in mental diseases.

MENTAL PATIENTS IN HOSPITALS.

State.	1938–39.	1946–47.	1947–48.	1948–49.	1949–50.
NUMBER.					
New South Wales	11,678	11,834	11,836	11,825	12,023
Victoria	7,326	7,037	7,052	7,120	7,203
Queensland	3,650	3,933	4,008	4,068	4,153
South Australia	1,747	2,107	2,165	2,213	2,310
Western Australia	1,477	1,471	1,505	1,537	1,547
Tasmania	631	663	648	662	686
Australia	26,509	27,045	27,214	27,425	27,922
PER 1,000 OF POPULATION.					
New South Wales	4.25	3.96	3.91	3.80	3.73
Victoria	3.92	3.45	3.42	3.38	3.33
Queensland	3.59	3.55	3.55	3.54	3.51
South Australia	2.93	3.26	3.29	3.29	3.30
Western Australia	3.16	2.96	2.96	2.94	2.84
Tasmania	2.66	2.58	2.47	2.46	2.46
Australia	3.81	3.59	3.56	3.50	3.45

The difference between States in the number of mental patients in hospitals per 1,000 of population may be due to some extent to differences in classification.

7. **Causes of Mental Diseases.**—The general information available respecting the causes of the mental diseases of persons admitted to institutions is too unsatisfactory to enable a classification of patients by cause to be given.

8. **Length of Residence in Hospital, 1949–50.**—(i) *New South Wales and Victoria.* Particulars are not available regarding the average length of residence in hospitals of persons who died or were discharged during the year.

(ii) *Queensland.* The average residence of those who died during 1949–50 was 9 years 189 days for males, and 7 years 235 days for females; of those discharged, 295 days for males, and 1 year 7 days for females.

(iii) *South Australia.* The average residence of those who died during 1949–50 was 8 years 11 months 23 days for males, and 6 years 9 months 22 days for females; of those discharged, 3 years 7 months 9 days for males, and 2 years 8 months 9 days for females.

(iv) *Western Australia.* The average residence of those who died in 1949 was 9 years 11 months 11 days for males, and 8 years 8 months 1 day for females; of those discharged, 1 year 7 months 28 days for males, and 3 years 11 months 6 days for females.

(v) *Tasmania.* The average residence of those who died during 1949–50 was 5 years 28 days for males, and 6 years 1 month 14 days for females; of those discharged, 1 year 1 month 8 days for males, and 1 year 3 months 21 days for females.

CHAPTER IX.

WELFARE SERVICES.

A. COMMONWEALTH SOCIAL SERVICE BENEFITS.[*]

§ 1. Introduction.

Commonwealth social service benefits are provided under the Social Services Consolidation Act 1947–1951 which came into operation on 1st July, 1947. This Act provided for the repeal of the existing laws relating to age and invalid pensions, maternity allowances, child endowment, widows' pensions and unemployment and sickness benefits, and for the immediate re-enactment of the necessary provisions for the grant and payment of these benefits under a unified law. Its more important effects were the elimination of obsolete provisions, the removal of anomalies, the amalgamation of like provisions, and the modernizing and grouping of the legislation so that it presented a symmetrical part of a well-defined pattern of social security. The history of the variations in the rates and conditions of age and invalid pensions, maternity allowances, child endowment, widows' pensions and unemployment and sickness benefits prior to 1st July, 1947 is referred to in earlier issues of the Official Year Book.

A summary of the Commonwealth expenditure in each State on Social and Health Services provided from the National Welfare Fund, is shown in the following table :—

COMMONWEALTH EXPENDITURE ON SOCIAL AND HEALTH SERVICES, 1950–51.
(£'000.)

Social and Health Services.	N.S.W. (a)	Vic.	Q'land.	S. Aust. (b)	W. Aust.	Tas.	Total.
Age and Invalid Pensions ..	20,856	11,958	7,185	4,300	3,438	1,783	49,520
Funeral Benefits	104	68	32	22	19	9	254
Child Endowment	16,872	10,948	6,974	3,782	3,270	1,734	(c) 43,585
Maternity Allowances	1,149	807	468	277	239	116	(d) 3,057
Widows' Pensions	1,972	1,196	794	389	316	161	4,828
Unemployment and Sickness Benefits	372	304	128	77	121	35	1,037
Hospital Benefits	2,617	1,567	1,022	553	522	255	6,536
Tuberculosis Campaign (e) ..	520	1,006	180	193	236	131	(f) 2,275
Community Rehabilitation ..	60	93	54	57	39	7	310
Pharmaceutical Benefits	997	799	464	302	248	82	(g) 2,930
National Health Service—							
Medical Benefits to Pensioners ..	38	13	7	9	7	1	75
Nutrition of Children	36	..	..	..	..	..	36
Miscellaneous	27	13	30	6	10	10	(h) 131
Mental Institution Benefits ..	203	147	..	34	13	9	406
Rental Rebates under Housing Agreement	..	..	..	..	..	3	3
Total	45,823	28,919	17,338	10,001	8,478	4,336	114,983

(a) Includes Australian Capital Territory. (b) Includes Northern Territory. (c) Includes payments abroad, £5,000. (d) Includes payments abroad, £1,000. (e) Includes allowances and reimbursements to the States. (f) Includes administration, £9,000. (g) Includes administration, £38,000. (h) Includes administration, £35,000.

§ 2. Age and Invalid Pensions.

1. **General.**—Age pensions are payable to men, 65 years of age and over, and women, 60 years of age and over, who have resided in Australia for a continuous period of 20 years. Any periods of absence during which a person's home remained in Australia, and absences in certain other circumstances, are counted as residence. Absence in a Territory of the Commonwealth does not break continuity of residence.

Invalid pensions are payable to persons, 16 years of age and over, who have resided in Australia for a continuous period of five years, and who are permanently incapacitated for work or permanently blind. For the purpose of the residential qualification, the position in regard to absences is the same as for age pensions. A person is deemed to be permanently incapacitated for work if the degree of his permanent incapacity is not less than 85 per cent. The claimant must have become permanently incapacitated or permanently blind while in Australia or during a temporary absence from Australia, but this condition is waived if he has resided in Australia for not less than 20 years (continuous or otherwise), which may be partly before or partly after the occurrence of the permanent incapacity or blindness.

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[*] Rates shown in this division were operating up to October, 1952. **For rates operating subsequently,** *see* Appendix to this volume.

2. **Persons Disqualified.**—A pension is not payable to :—an alien (except a woman who, prior to marriage, was a British subject) ; a person who has deprived himself of property or income in order to qualify for a pension ; a person in receipt of income of £234 per annum or more (blind persons £676 per annum) or £468 per annum for a married couple (£832 per annum where both husband and wife are blind) ; a person who owns property, apart from his permanent home and other exempt property, to the net value of more than £1,000 (£2,000 for married persons) ; a person who is not deserving of a pension ; a person who is not of good character or who has deserted his wife (or her husband) or children for six months or upwards immediately preceding the date of the claim (age pension only) ; or a person under 21 years of age who is adequately maintained by his parents (invalid pension only).

3. **Aboriginal Natives.**—Pensions may be granted to aboriginal natives of Australia who have been granted exemption from State control laws, or who, in any State where exemption is not provided for, are considered suitable persons to receive pensions by virtue of character, standard of intelligence and social development.

4. **Pension Rate.**—The maximum rate of pension from 1st November, 1951, is £156 per annum. (*See* footnote, page 307.)

5 **Effect of Income.**—Permissible income is £78 per annum. Any income in excess of this amount is deducted from the pension. The income of a married person is deemed to be half the total income of husband and wife except where they are legally separated or in certain other circumstances. Permissible income for blind persons, whether single or married, is £520 per annum. Any excess income is deducted from the pension. Where both husband and wife are blind, half the amount of any income in excess of £520 per annum is deducted from each pension. "Income" does not include gifts or allowances from children or parents, benefits from friendly societies, payments in respect of illness, infirmity or old-age from any trade union, the value of State food relief, child endowment or other payments for or in respect of children, benefits under the Commonwealth Hospital Benefits, Pharmaceutical Benefits and interest on Commonwealth war gratuities.

6. **Effect of Property.**—The rate of pension is reduced by £1 per annum for every complete £10 of that portion of the net value of property which exceeds £100 but does not exceed £450, and by £2 per annum for every complete £10 of the remainder (if any) of the net value of the property up to £1,000. The value of property of a married person is deemed to be half the total value of property of husband and wife.

The value of a home, furniture and personal effects, the surrender value (up to £750) of any life assurance policies, the capital value of any life interest, annuity or contingent interest, the present value (up to £750) of any reversionary interest, the value of any property from the estate of a deceased person which has not been received and the amount of any Commonwealth war gratuity are disregarded in the computation of property.

7. **Claimants Receiving War Pensions.**—A person receiving a war pension may be granted an age or invalid pension in addition to the war pension, but the total amount payable in respect of the two pensions must not exceed £208 per annum. In the case of a married couple where husband and wife each receive a civil pension (age or invalid, wife's allowance or service pension), the total amount which may be received in respect of war pensions and civil pensions is £377 per annum ; in other cases of married persons the limit is £305 10s. per annum. Where the war pension (or pensions) and the civil pension (or pensions) together exceed the appropriate limit, the civil pension (or pensions) is (or are) reduced by the amount of the excess, but the pensioner is permitted to have other income to bring the total war pension and civil pension payments, plus the other income, up to the appropriate limit of income plus pension, £208 per annum for a single person or £416 per annum for a married couple, both qualified for pensions.

8. **Inmates of Institutions.**—A pensioner who is an inmate of a benevolent asylum is paid £54 12s. per annum of his pension and the balance of the pension is paid to the institution for his maintenance.

9. **Wives' Allowances.**—An allowance, not exceeding £78 per annum, may be granted to the wife of an invalid pensioner (or an age pensioner who is permanently incapacitated for work or permanently blind) if she is living with her husband and is not receiving an age or invalid pension or a service pension. The rate of the allowance is affected by income and property on the same basis as an age or invalid pension.

10. **Childrens' Allowances.**—An allowance of £29 18s. per annum in respect of one child under the age of 16 years may be granted to the wife of an invalid pensioner living with her husband. The allowance may also be granted to any invalid pensioner who has the custody, care and control of a child under the age of 16 years, but where both husband and wife are invalid pensioners (living together) the child's allowance is payable only to the wife.

11. **Rehabilitation of Invalid Pensioners.**—The scheme for the rehabilitation of invalid pensioners, by which invalid pensioners may be given suitable treatment and vocational training at the Commonwealth's expense with a view to enabling them to learn some suitable craft or occupation whereby they may eventually become self-supporting, came into operation from the 10th December, 1948. The cases selected for treatment and training are those in which the pensioner's disability is remediable and where there are reasonable prospects of his engaging in a suitable vocation within two years after the commencement of treatment or training.

During the period of treatment payment of the pension is continued, and when vocational training is commenced the pension is suspended and, in its place, the trainee is paid a rehabilitation allowance at a rate equivalent to the rate of invalid pension (including any wife's or child's allowance) for which he is qualified, plus a training allowance of £1 5s. per week. Where it is necessary for a trainee to live away from home for the purpose of receiving training, an additional allowance is paid. The cost of fares regularly incurred by the pensioner in travelling for the purpose of receiving treatment or training may also be paid by the Commonwealth. A pensioner undergoing treatment or training may be provided with any artificial replacements, surgical aids and appliances and with such books, equipment and tools of trade (costing not more than £20) as are required for his treatment or training or to enable him to engage in employment. The pensioner, however, is required to pay the cost of any articles which he retains for his own use, but payment may be made by small instalments after he has commenced employment.

If, in any case, the treatment or vocational training of a pensioner does not result in his being able to engage in employment, his right to continuance of his invalid pension is not thereby prejudiced in any way.

The grant or continuance of an invalid pension may be refused unless the claimant or pensioner undergoes such treatment or training as the Director-General of Social Services considers is reasonable for him to undergo, having regard to the pensioner's age and physical and mental capacity and to the facilities available. During the year 1950–51 the number of pensioners examined was 11,135, of whom 782 were accepted for treatment, and 495 were placed in employment.

12. **Funeral Benefits.**—From 1st July, 1943 a funeral benefit of up to £10 has been payable to the person who has paid, or is liable to pay, the cost of the funeral of an age or invalid pensioner or of a claimant who, but for his death, would have been granted an age or invalid pension. Where the cost of the funeral has been partly met by payment from a contributory funeral benefit fund of an organization other than a friendly society, funeral benefit is payable to the extent of the amount (not above £10) by which the cost of the funeral exceeded the amount paid from the fund. A funeral benefit is not payable to a person administering a contributory funeral benefit fund.

13. Rates of Pension Payable.—The following statement shows the rates of pension at 1st July, 1909 and the rates as they have been varied since that date :—

MAXIMUM RATES OF PENSION PAYABLE.

(£ *s. d.*)

Date from which Operative.	Maximum Pension Payable—		Limit of Income including Pension.	
	Annual Rate.	Weekly Equivalent.	Annual Rate.	Weekly Equivalent.
1st July, 1909	26 0 0	0 10 0	52 0 0	1 0 0
12th October, 1916	32 10 0	0 12 6	58 10 0	1 2 6
1st January, 1920	39 0 0	0 15 0	65 0 0	1 5 0
13th September, 1923	45 10 0	0 17 6	78 0 0	1 10 0
8th October, 1925	52 0 0	1 0 0	84 10 0	1 12 6
23rd July, 1931	45 10 0	0 17 6	78 0 0	1 10 0
13th October, 1932(*a*)	39 0 0	0 15 0	71 10 0	1 7 6
26th October, 1933	45 10 0	0 17 6	78 0 0	1 10 0
4th July, 1935 (*b*)	46 16 0	0 18 0	79 6 0	1 10 6
24th September, 1936	49 8 0	0 19 0	81 18 0	1 11 6
9th September, 1937	52 0 0	1 0 0	84 10 0	1 12 6
26th December, 1940	54 12 0	1 1 0	87 2 0	1 13 6
3rd April, 1941 (*b*)	55 18 0	1 1 6	88 8 0	1 14 0
11th December, 1941	61 2 0	1 3 6	93 12 0	1 16 0
2nd April, 1942(*b*)	62 8 0	1 4 0	94 18 0	1 16 6
2nd April, 1942(*c*)	65 0 0	1 5 0	97 10 0	1 17 6
1st October, 1942(*b*)	66 6 0	1 5 6	98 16 0	1 18 0
7th January, 1943(*b*)	67 12 0	1 6 0	100 2 0	1 18 6
1st April, 1943(*b*)	68 18 0	1 6 6	101 8 0	1 19 0
19th August, 1943(*b*)	70 4 0	1 7 0	102 14 0	1 19 6
25th November, 1943(*b*)(*d*)	68 18 0	1 6 6	101 8 0	1 19 0
25th November, 1943(*d*)	70 4 0	1 7 0	102 14 0	1 19 6
5th July, 1945	84 10 0	1 12 6	117 0 0	2 5 0
13th August, 1946	84 10 0	1 12 6	136 10 0	2 12 6
3rd July, 1947	97 10 0	1 17 6	149 10 0	2 17 6
21st October, 1948	110 10 0	2 2 6	188 10 0	3 12 6
2nd November, 1950	130 0 0	2 10 0	208 0 0	4 0 0
1st November, 1951(*e*)	156 0 0	3 0 0	234 0 0	4 10 0

(*a*) Additional pension of £6 10s. per annum (2s. 6d. per week) was payable to a pensioner with no income. Pensioners with income of less than 2s. 6d. per week were paid additional pension of 2s. 6d. less the amount of income. (*b*) Variation according to rise in retail price index-number. (*c*) Increase paid on 9th July, 1942, retrospective to 2nd April, 1942. (*d*) Rate restored to £70 4s. per annum under National Security (Supplementary) Regulation 112A—Statutory Rule 315 of 1943. (*e*) *See* footnote, page 307.

NOTE.—Provision for variations according to retail price index-numbers repealed 6th April, 1944.

14. Age Pensions.—(i) *Number in force.* At 30th June, 1950, there were 334,923 age pensions in force. During 1950–51, 34,842 age pensions claims were granted and 5,563 pensioners were transferred from the invalid pension list, while 32,522 pensions expired through cancellations and deaths. The net increase for the year was 7,883 and the total in force at 30th June, 1951, was 342,806.

(i) *Sexes of Age Pensioners—States.* Of the age pensioners at 30th June, 1951, 116,222 (or 34 per cent.) were males, and 226,584 (or 66 per cent.) were females. Details for each State are as follows :—

AGE PENSIONS : SEXES OF PENSIONERS AT 30th JUNE, 1951.

State.	Males.	Females.	Total.	Masculinity.(*a*)
New South Wales (*b*)	50,289	91,369	141,658	55.04
Victoria	26,268	59,942	86,210	43.82
Queensland	17,069	31,006	48,075	55.05
South Australia (*c*)	9,630	21,368	30,998	45.07
Western Australia	8,967	15,350	24,317	58.42
Tasmania	3,999	7,549	11,548	52.97
Total—30th June, 1951	116,222	226,584	342,806	51.29
„ 1950	115,356	219,567	334,923	52.54

(*a*) Number of males to each 100 females. (*b*) Includes Australian Capital Territory. (*c*) Includes Northern Territory.

(iii) *Age and Conjugal Condition of Age Pensioners.* The recorded ages of the 34,842 persons (12,395 males and 22,447 females) to whom age pensions were granted during the year 1950–51 varied considerably, ranging from 6,426 at age 60 to one at age 103, but 25,966 were in the 60–70 group. The conjugal condition of these new pensioners was as follows :—Males—single, 1,630 ; married, 8,541 ; and widowed, 2,224 : Females—single, 3,347 ; married, 10,363 ; and widowed, 8,737.

15. **Invalid Pensions.**—(i) *Number in force.* The number of invalid pensioners decreased from 73,494 in 1949–50 to 68,918 in 1950–51, a decrease of 4,576. Total pensions granted during the year were 8,166, while 7,179 pensions ceased through cancellations or deaths, and 5,563 were transferred to the age pension list.

(ii) *Sexes of Invalid Pensioners—States.* Of the 68,918 persons in receipt of invalid pensions at 30th June, 1951, 37,580 (or 55 per cent.) were males, and 31,338 (or 45 per cent.) were females. Details for each State are as follows :—

INVALID PENSIONS : SEXES OF PENSIONERS AT 30th JUNE, 1951.

State.	Males.	Females.	Total.	Masculinity.(*a*)
New South Wales (*b*)	18,321	14,388	32,709	127.34
Victoria	7,443	6,534	13,977	113.91
Queensland	5,947	4,793	10,740	124.08
South Australia (*c*)	2,211	2,212	4,423	99.95
Western Australia	2,199	1,985	4,184	110.73
Tasmania	1,459	1,426	2,885	102.31
Total—30th June, 1951 ..	37,580	31,338	68,918	119.92
" 1950 ..	39,601	33,893	73,494	116.84

(*a*) Number of males to each 100 females. (*b*) Includes Australian Capital Territory. (*c*) Includes Northern Territory.

(iii) *Age and Conjugal Condition of Invalid Pensioners.* The recorded ages of the 8,166 persons (4,835 males and 3,331 females) to whom invalid pensions were granted during 1950–51 varied from 16 to 87, 4,028 or 49 per cent. being in the 45–59 years age-group.

The conjugal condition of persons to whom invalid pensions were granted during the year was as follows : —Males—single, 1,581 ; married, 2,963 ; and widowed, 291 : Females—single, 1,490 ; married, 1,283 ; and widowed, 558.

16. **Age and Invalid Pensions : Payments and Annual Liability.**—Separate particulars of the payments to age and invalid pensioners are not available but the total payments in 1950–51 in each State together with the annual liability of each class of pensioner at 30th June, 1951 are shown in the following table :—

AGE AND INVALID PENSIONS : PAYMENTS AND ANNUAL LIABILITY.
(£.)

State.	Total Payments Age and Invalid Pensions, 1950–51.(*a*)	Annual Liability at 30th June, 1951.		
		Age Pensions.	Invalid Pensions.	Total.
New South Wales (*b*) ..	20,855,983	17,374,292	4,103,191	21,477,483
Victoria	11,958,534	10,785,428	1,741,145	12,526,573
Queensland	7,184,550	6,044,218	1,371,027	7,415,245
South Australia (*c*) ..	4,300,170	3,875,078	562,897	4,437,975
Western Australia	3,438,435	3,025,574	523,365	3,548,939
Tasmania	1,782,613	1,409,369	362,092	1,771,461
Total—1950–51 ..	49,520,285	42,513,959	8,663,717	51,177,676
1949–50 ..	44,557,161	35,190,935	7,838,078	43,029,013

(*a*) Includes amounts paid to Benevolent Asylums and Hospitals for the maintenance of 5,644 pensioners, and 18,892 allowances to wives of invalid pensioners. (*b*) Includes Australian Capital Territory. (*c*) Includes Northern Territory.

The actual sum disbursed in age and invalid pensions in the financial year 1950–51, apart from the cost of administration but including the amount paid to asylums and hospitals for the maintenance of pensioners and allowances to wives of invalid pensioners, was £49,520,285 (£5 19s. 2d. per head of mean population). In 1949–50 it was £44,557,161 (£5 10s. 8d. per head of mean population).

17. Summary.—The following table gives details of age and invalid pensions and approximate cost of administration for the five years 1938–39 and 1946–47 to 1950–51 :—

AGE AND INVALID PENSIONS : SUMMARY, AUSTRALIA.

Year ended 30th June—	Number of Pensioners at End of Year.				Amount Paid in Pensions.	Total Payment to Pensioners and Institutions. (b)	Cost of Administration (approximate).	Cost of Administration per £100 paid to Pensioners and Institutions (approximate).	Average Fortnightly Pension as at 30th June.
	Age.		Invalid.	Total.					
	No.	Est. No. per 1,000 of persons eligible on age qualification. (a)							
			No.	No.	£	£	£	£ s. d.	s. d.
1939	232,836	376	88,812	321,648	15,798,038	15,991,782	128,000	0 16 0	38 5
1947	290,173	375	68,277	358,450	29,295,099	29,416,673	254,504	0 17 4	62 8
1948	302,854	381	73,073	375,927	36,376,104	36,526,395	309,146	0 16 11	71 11
1949	321,327	392	76,056	397,383	41,535,907	41,693,680	399,304	0 19 2	81 5
1950	334,923	395	73,494	408,417	44,354,253	44,557,161	493,955	1 2 2	81 1
1951	342,806	395	68,918	411,724	49,307,690	49,520,285	(c)	(c)	95 7

(a) Based on an estimate of the aggregate of males aged 65 and over and females aged 60 and over at 30th June of each year. (b) Includes allowances to wives of invalid pensioners payable from the 8th July, 1943, but excludes funeral benefits in respect of deaths of pensioners, £209,349 in 1946–47; £209,588 in 1947–48 ; £252,479 in 1948–49 ; £245,822 in 1949–50 ; and £243,058 in 1950–51. (c) Not available.

§ 3. Maternity Allowances.

1. **General.**—A maternity allowance is payable to a woman who, at the date of giving birth to a child, is residing in Australia or is in Australia and intends to remain. The allowance is payable in respect of a birth which occurs in Australia or on board a ship proceeding from a port in Australia or a Territory of the Commonwealth to another port in Australia or a Territory of the Commonwealth. The allowance is also payable in respect of a birth which occurs on board a ship proceeding to Australia, provided the mother receives no maternity benefit in respect of the birth from the country from whence she came. Payment may be made in respect of the birth of a still-born child, or a child which lives for less than twelve hours, if the period of intra-uterine life of the child was at least 5½ calendar months. There is no means test.

2. **Alien Mothers.**—Payment may be made to an alien mother if she was a British subject prior to her marriage, or if she or her husband resided in Australia for at least twelve months immediately prior to the birth of the child. Payment in respect of a

birth which occurs within twelve months of the mother's arrival in Australia may be made at the end of that twelve months, but may be made immediately if the mother is likely to remain in Australia.

3. **Aboriginal Natives.**—Maternity allowances may be paid only to those aboriginal natives of Australia who have been granted exemption from State control laws or who, in any State where exemption is not provided for, are considered suitable persons to receive the allowance by virtue of character, standard of intelligence and social development.

4. **Amount Payable.**—From 1st July, 1947, the amount of a maternity allowance has been £15 where there are no other children; £16 where there are one or two other children; and £17 10s. where there are three or more other children. "Other children" means children under the age of sixteen years who were in the custody, care and control of the claimant on the date of the birth in respect of which the claim is made. The amount payable is increased by £5 in respect of each additional child born at a birth. Payment of £5 on account of a maternity allowance may be made available, upon application, within a period of four weeks prior to the expected date of birth. The balance is payable immediately after the birth.

5. **Persons Temporarily Abroad.**—Maternity allowances may be paid, under certain conditions, to persons ordinarily resident in Australia who are temporarily abroad.

6. **Summary.**—The following table gives details of the maternity allowance claims paid and rejected and of the amount paid since the inception and for the six years 1938–39 and 1946–47 to 1950–51 :—

MATERNITY ALLOWANCES : SUMMARY.

Year.	Claims Paid.	Claims Rejected.	Amount Paid.	Cost of Administration (approximate).	Cost per £100 allowance paid (approximate).
	No.	No.	£	£	£ s. d.
1938–39 ..	80,916	6,272	436,614	16,659	3 17 8
1946–47 ..	191,994	636	3,026,459	23,000	0 15 2
1947–48 ..	177,566	247	2,854,018	22,000	0 15 5
1948–49 ..	177,955	235	2,828,849	24,000	0 17 0
1949–50 ..	189,733	283	3,007,906	28,000	0 18 7
1950–51 ..	191,587	306	3,057,519	(a) 41,000	1 6 10
Aggregate—1912–13 to 1950–51 ..	4,781,902	111,109	38,811,993	619,455	1 12 0

(a) Estimated.

NOTE.—Means test was abolished from 1st July, 1943.

7. **Claims paid in each State.**—The following table shows the number of maternity allowance claims paid in each State during the years 1938–39 and 1946–47 to 1950–51 :—

MATERNITY ALLOWANCES : NUMBER OF CLAIMS PAID IN EACH STATE.

Year ended 30th June—	N.S.W. (a)	Vic.	Q'land.	S.A.	W.A.	Tas.	N.T.	Total.
1939	30,860	20,819	12,880	7,162	5,213	3,940	42	80,916
1947	73,110	50,730	29,002	(b) 17,860	13,750	7,542	(c)	191,994
1948	68,116	46,027	27,920	(b) 15,856	12,553	7,074	(c)	(d) 177,566
1949	67,534	46,309	27,570	(b) 16,381	13,107	6,984	(c)	(d) 177,955
1950	73,566	49,035	28,652	(b) 17,273	13,759	7,408	(c)	(d) 189,733
1951	72,003	50,210	29,155	(b) 17,864	14,986	7,250	(c)	(d) 191,587
Total, 1912–13 to 1950–51 ..	1,875,755	1,243,625	725,142	420,645	315,140	200,219	1,127	4,781,902 (d)

(a) Includes Australian Capital Territory. (b) Includes Northern Territory. (c) Included with South Australia. (d) Includes claims paid abroad, 1947–48, 20; 1948–49, 70; 1949–50, 40; 1950–51, 119; total to 30th June, 1951, 249.

8. **Claims Paid at the Various Rates.**—The following table shows the number of claims paid in each State at the several rates of maternity allowance during the year 1950–51. The total for Australia for the year 1949–50 is also shown :—

MATERNITY ALLOWANCES : NUMBER OF CLAIMS PAID AT EACH RATE, 1950–51.

State.	Single Births.			Multiple Births.							Total Claims Paid.
				Twins.			Triplets.			Quadruplets. £31.	
	£15.	£16.	£17 10s.	£20.	£21.	£22 10s.	£25.	£26.	£27 10s.		
N.S. Wales(a) ..	24,682	35,115	11,336	259	431	175	3	..	1	1	72,003
Victoria ..	17,321	24,888	7,359	194	334	106	2	3	2	1	50,210
Queensland ..	9,092	13,845	5,885	84	150	95	3	..	1	..	29,155
Sth. Australia(b)	5,951	9,098	2,616	60	100	39	..	..	..	..	17,864
W. Australia ..	4,735	7,649	2,432	40	88	40	..	2	..	..	14,986
Tasmania ..	2,216	3,401	1,536	14	58	23	..	2	..	..	7,250
Abroad ..	63	50	4	2	..	..	..	..	..	..	119
Total 1950–51	64,060	94,046	31,168	653	1,161	478	8	7	4	2	191,587
1949–50	66,217	91,061	30,210	613	1,156	452	7	9	7	(c) 1	189,733

(a) Includes Australian Capital Territory. (b) Includes Northern Territory. (c) Quadruplets £32 10s., in Western Australia.

§ 4. Child Endowment.

1. **General.**—Any person who is resident in Australia and has the custody, care and control of one or more children under the age of sixteen years, and an approved institution of which children are inmates shall be qualified to receive an endowment in respect of each child. There is a twelve months residential requirement in respect of a claimant and a child who were not born in Australia, but this is waived if the claimant and the child are likely to remain permanently in Australia. A child born during the mother's temporary absence from Australia is deemed to have been born in Australia. There is no means test.

2. **Child of Alien Father.**—Endowment may be paid in respect of a child of an alien father if the child was born in Australia, or the mother is a British subject and the child is likely to remain permanently in Australia.

3. **Aboriginal Natives.**—Endowment may be paid to aboriginal natives of Australia unless they are nomadic, or unless the child concerned is wholly or mainly dependent on the Commonwealth or a State for his support.

4. **Rate of Payment.**—From 20th June, 1950, the rate of endowment payable has been (a) where the endowee has the custody of one child only—5s. per week ; (b) where the endowee has the custody of two or more children—in respect of the elder or eldest child 5s. per week and in respect of each other child 10s. per week ; and (c) in the case of an approved institution the rate is 10s. per week for each child inmate. From 1st July, 1941, the date of the inception of the scheme, the rate of endowment was 5s. per week for each child in excess of one in a family, and for each child under sixteen years in an approved institution. The rate was increased to 7s. 6d. per week from 25th June, 1945, and to 10s. per week from 9th November, 1948.

5. **Divided Families.**—There are provisions to meet cases of families divided by reason of divorce, separation, unemployment, death of a parent or other circumstances. In these cases endowment may be paid to the father, mother or other person.

6. **Australians Temporarily Abroad.**—Endowment may be paid, under certain conditions, to persons ordinarily resident in Australia who are temporarily abroad.

7. **Members of United Kingdom Defence Forces.**—Endowment will be paid for the children of members of the Naval, Military or Air Forces of the United Kingdom who are serving with the Australian Forces from the time of arrival in Australia.

8. **Summary.**—During the year 1950–51, 510,273 claims were granted, cancellations amounted to 22,375 and the number of endowed family group claims in force at 30th June, 1951 was 1,150,847, an increase of 487,898 or 73.6 per cent. during the year. This

large increase was due mainly to the extension from 20th June, 1950, of endowment to the first or only child under sixteen years of age in a family. The following table shows particulars of the operations during the year ended 30th June, 1951, and earlier years :—

CHILD ENDOWMENT : SUMMARY, 1950–51.

State.	Family Groups.					Total Payments to Endowees and Institutions.
	Claims in force at end of year.	Endowed Children.		Annual Liability at 30th June, 1951.		
		Total.	Average per claim.	Total.	Average Liability per claim.	
	No.	No.	No.	£	£	£
New South Wales(*a*)	458,829	930,697	2.03	18,233,345	39.74	16,872,169
Victoria	301,805	605,673	2.01	11,824,033	39.18	10,948,350
Queensland ..	165,465	360,122	2.18	7,212,127	43.59	6,973,906
South Australia(*b*) ..	102,711	206,843	2.01	4,042,675	39.36	3,782,174
Western Australia ..	81,598	172,186	2.11	3,416,062	41.86	3,269,549
Tasmania ..	40,229	89,241	2.22	1,797,289	44.68	1,733,775
Abroad	210	415	1.98	8,060	38.38	4,691
Total—1950–51 ..	1,150,847	2,365,177	2.06	46,533,591	40.43	43,584,614
1949–50 ..	662,949	1,813,925	2.74	38,543,713	58.14	30,337,363
1948–49 ..	620,819	1,083,994	1.75	28,183,844	45.40	24,323,413
1947–48 ..	586,415	1,029,777	1.76	20,080,652	34.24	19,425,518
1946–47 ..	559,730	986,814	1.76	19,242,873	34.38	19,862,933

(*a*) Includes Australian Capital Territory. (*b*) Includes Northern Territory.

In addition to the children endowed in families, child endowment benefits were paid in respect of children in approved institutions during 1946–47 to 1950–51 as follows : 1946–47, 19,743 ; 1947–48, 20,580 ; 1948–49, 21,305 ; 1949–50, 22,397 ; and in 1950–51, 23,753.

9. **Number of Children.**—The following table shows, as at 30th June, 1950 and 1951, the number of claims in force and the number of endowed children classified according to the number of children in the family :—

CHILD ENDOWMENT : NUMBER OF CHILDREN.(*a*)

Size of Family.	30th June, 1950.		30th June, 1951.	
	Claims in force.	Number of endowed children.	Claims in force.	Number of endowed children.
One child	396	396	451,793	451,793
Two children	372,477	744,954	390,567	781,134
Three ,, ...	172,281	516,843	184,606	553,818
Four ,, ...	70,082	280,328	74,519	298,076
Five ,, ...	28,116	140,580	29,387	146,935
Six ,, ...	11,361	68,166	11,584	69,504
Seven ,, ...	4,979	34,853	4,987	34,909
Eight ,, ...	2,090	16,720	2,199	17,592
Nine ,, ...	734	6,606	801	7,209
Ten ,, ...	328	3,280	287	2,870
Eleven ,, ...	75	825	79	869
Twelve ,, ...	21	252	29	348
Thirteen ,, ...	7	91	7	91
Fourteen ,, ...	..	..	1	14
Fifteen ,, ...	1	15	1	15
Sixteen ,, ...	1	16	..	..
Total	662,949	1,813,925	1,150,847	2,365,177

(*a*) Under 16 years of age.

§ 5. Widows' Pensions.

1. **General.**—Widows' pensions and the rates in each class, as from 6th November, 1951, have been payable to the following classes of women :—

Class "A"—A widow who has the custody, care and control of one or more children under the age of 16 years. Rate £169 per annum.

Class "B"—A widow, not less than 50 years of age, who has no children under 16 years of age in her custody, care and control. Rate £130 per annum.

Class "C"—A widow, under 50 years of age, who has no children under the age of 16 years in her custody, care and control, but is in necessitous circumstances within 26 weeks after the death of her husband. Rate £2 10s. per week for not more than 26 weeks.

Class "D"—A woman whose husband has been serving a term of imprisonment for at least six months, if she has the custody, care and control of one or more children under the age of 16 years or is not less than 50 years of age. Rate £130 per annum.

The term "widow" includes :—a "dependent female" (i.e. a woman, who, for not less than three years immediately prior to the death of a man, was wholly or mainly maintained by him as his wife on a permanent and *bona fide* domestic basis) ; a deserted wife (i.e. a woman deserted by her husband for not less than six months) ; a divorcee (i.e. a woman whose marriage has been dissolved and who has not remarried); and a woman whose husband is an inmate of a mental hospital.

The residential qualification is five years' continuous residence in Australia immediately prior to the date of lodgment of the claim. Concessions in respect of absences are the same as for age pensions. (*See* footnote, page 307.)

2. **Persons Disqualified.**—A widow's pension is not payable to :—an alien (except a woman who, prior to marriage, was a British subject) ; a woman who is in receipt of an age or invalid pension, or a war widow's pension under the Repatriation Act in respect of the death of her husband ; a woman who has deprived herself of property or income in order to qualify for a pension ; a deserted wife or a divorcee who has not taken reasonable action to obtain maintenance from her husband or former husband ; a woman who is not of good character ; a woman who is not deserving of a pension ; a woman in Class "A" in receipt of income of £247 per annum or more or owning property, apart from her permanent home and other exempt property, to the net value of more than £1,250 or a woman in Classes "B" or "D" in receipt of income of £208 per annum or more or owning property, apart from her permanent home and other exempt property, to the net value of more than £1,000.

3. **Aboriginal Natives.**—Widows' pensions may be granted to aboriginal natives of Australia under the same conditions as age pensions.

4. **Effect of Income.**—Permissible income is £78 per annum. Any income in excess of this amount is deducted from the pension. "Income" has the same meaning as for age pensions. Any amount in excess of 15s. per week received by a deserted wife or a divorcee from her husband or former husband in respect of the maintenance of a child is taken into account in the claimant's income for pension purposes.

5. **Effect of Property.**—The rate of pension for women in Classes "B" and "D" is reduced by £1 per annum for every complete £10 of that portion of the net value of property which exceeds £100 but does not exceed £450, and by £1 per annum for every complete £7 of the remainder (if any) of the net value of the property up to £1,000. Property disregarded in determining eligibility for pension is the same as for age pensions.

6. **Claimants Receiving War Pension.**—A widow is not permitted to receive, in respect of the death of her husband, both a war widow's pension under the Repatriation Act and a civil widow's pension. Other widows, however, may receive a civil widow's pension in addition to a war pension, but the total amount payable in

respect of the two pensions must not exceed £234 per annum in the case of a Class "A" widow or £195 per annum in the case of a widow coming within Classes "B", "C" or "D". Where the war pension and the widow's pension together exceed the limit applicable, the widow's pension is reduced by the amount of the excess. The widow is permitted to have, in addition, other income to bring her total war pension and widow's pension payments up to the appropriate limit of income plus pension, £247 per annum for a Class "A" widow, £208 for a Class "B" or "D" widow.

7. **Payment of Class "A" Pension for Children Continuing Education.**—The pension payable to a Class "A" widow may be continued after her child attains the age of 16 years if the child continues with full-time education at a school or university and is still dependent on the widow and is not in employment. These conditions apply until the child reaches the age of 18 years.

8. **Summary.**—The number of widows' pensions current at 30th June, 1951, was as follows :—Class "A", 17,717 ; Class "B", 23,997 ; Class "C", 120 ; Class "D", 128 ; total, 41,962. The amount paid in pensions during 1950–51 was £4,828,086. The following table shows details of widows' pensions paid in each State in the year 1950–51 and for Australia for each of the years 1946–47 to 1950–51 :—

WIDOWS' PENSIONS AT 30th JUNE, 1951.(*a*)

State.	Pensions Current.(*b*)		Children for whom Pensions Payable.	Average Fortnightly rate of Pension. (*c*)	Amount paid in Pensions during 1950–51.	
	Number.	Per 10,000 of Population.			Amount.	Per head of Population.(*d*)
			No.	£ s. d.	£	s. d.
New South Wales (*e*)	16,975	51	7,651	4 10 9	1,971,798	12 0
Victoria	10,631	47	3,817	4 9 9	1,195,631	10 8
Queensland ..	6,799	56	3,028	4 12 10	793,721	13 4
South Australia(*f*) ..	3,402	46	1,344	4 10 5	389,414	10 9
Western Australia ..	2,789	48	1,198	4 11 2	316,165	11 1
Tasmania	1,366	47	679	4 11 6	161,357	11 3
Total 1950–51 ..	41,962	50	17,717	4 10 10	4,828,086	11 7
1949–50 ..	42,894	52	17,760	3 19 3	4,420,566	11 0
1948–49 ..	43,251	55	17,891	3 19 8	4,388,468	11 3
1947–48 ..	43,025	56	17,732	3 8 11	3,904,086	10 3
1946–47 ..	42,742	56	16,702	2 19 1	3,366,288	8 11

(*a*) The Commonwealth Government commenced to pay widows' pensions from 1st July, 1942. (*b*) Excludes nine (1950–51),fourteen (1949–50), eleven(1948–49), six (1947–48), thirteen (1946–47), pensions in respect of pensioners in Benevolent Asylums. (*c*) Payments were four-weekly up to the 24th June, 1947 pay. (*d*) Based on mean population for the financial year. (*e*) Includes Australian Capital Territory. (*f*) Includes Northern Territory.

§ 6. Unemployment and Sickness Benefits.

1. **General.**—From 1st July, 1945, men over 16 and under 65 years of age, and women over 16 and under 60 years of age, have been eligible to apply for an unemployment benefit or a sickness benefit. There is a twelve month's residential requirement but this is waived if the claimant is likely to remain permanently in Australia. A person in receipt of an age, invalid or widows' pension, or a service pension (as distinct from a war pension) under the Repatriation Act is ineligible to receive a benefit.

2. **Unemployment Benefit.**—To qualify for an unemployment benefit a person must establish that he is unemployed and that his unemployment is not due to his being a direct participant in a strike; that he is capable and willing to undertake suitable work; and that he has taken reasonable steps to obtain such work.

3. **Sickness Benefit.**—To qualify for a sickness benefit a person must establish that he is temporarily incapacitated for work by reason of sickness or accident and that he has thereby suffered a loss of salary, wages or other income.

4. **Married Women.**—A married woman is not qualified to receive a sickness benefit if it is reasonably possible for her husband to maintain her. Where her husband is able to maintain her only partially, a benefit may be paid at such rate as is considered reasonable in the circumstances.

5. **Aboriginal Natives.**—A benefit may be paid only to those aboriginal natives of Australia who are considered suitable, by reason of character, standard of intelligence and social development.

6. **Maximum Rates of Benefits and Income.**—The maximum weekly rates of benefit and permissible income are as follows:—

MAXIMUM RATES OF BENEFITS AND INCOME.(*a*)

(*s. d.*)

Age and Conjugal Condition.	Maximum Weekly Benefit.				Permissible Income.
	Claimant.	Dependent Spouse.	Child.	Total.	
Unmarried—					
16 years and under 17 years	15 0	..	..	15 0	5 0
17 " " " 18 "	15 0	..	..	15 0	10 0
18 " " " 21 "	20 0	..	..	20 0	15 0
21 years and over	25 0	..	..	25 0	20 0
Married	25 0	20 0	5 0	50 0	20 0

(*a*) *See* footnote, page 307.

Where an unmarried claimant has the custody, care and control of a child under the age of sixteen years, the total income may be increased by 5s. per week.

Additional benefit of up to 20s. per week may be paid in respect of a claimant's housekeeper where no such benefit is payable in respect of his wife, provided there are one or more children under 16 years of age in the house and the woman is substantially dependent on the claimant but is not employed by him.

7. **Means Test.**—Any income in excess of the permissible income shown in the previous table is deducted from the rate of benefit. For unemployment benefit purposes, the income of the claimant and his spouse are taken into account, but where the claimant and his spouse are permanently separated any income received by the spouse may be disregarded. "Income" does not include child endowment, or other payments for or

in respect of children, benefits under the Commonwealth Hospital Benefits and Pharmaceutical Benefits, or an amount paid in reimbursement of medical, dental or similar expenses actually paid. For sickness benefit purposes, there is disregarded £1 per week of any payment received from an approved friendly society or other similar approved body in respect of the incapacity for which sickness benefit is payable.

Where a person qualified for sickness benefit receives or is entitled to receive (in respect of the same period and the same incapacity for which sickness benefit is payable) any payment by way of compensation (including workers' compensation), damages, or otherwise under any law (except payments for which he has contributed), the amount of the compensation, etc., is not taken into account as income but is deducted from the rate of sickness benefit otherwise payable.

8. **Waiting Period.**—There is a waiting period of seven days in respect of which unemployment or sickness benefit is not payable.

9. **Special Benefit.**—A special benefit may be granted to a person not qualified for unemployment or sickness benefit who is not in receipt of an age, invalid or widow's pension or a service pension, if, by reason of age, physical or mental disability or domestic circumstances, or for any other reason, he is unable to earn a sufficient livelihood for himself and his dependants.

10. **Rehabilitation.**—Unemployment and sickness beneficiaries are eligible for participation in the Commonwealth rehabilitation scheme under the same conditions as invalid pensioners. The grant or continuance of an unemployment or sickness benefit may be refused if the claimant or beneficiary, on being required, fails to undergo a medical examination or to receive treatment or undertake training or to do any suitable work.

During the year 1950–51 the number of persons examined was 9,226, of whom 1,152 were accepted for treatment and 842 were placed in employment.

11. **Statistics, 1949–50 and 1950–51.**—(i) *Persons on Benefit.* At 30th June, 1951, 8,569 persons were paid benefits, comprising 604 unemployment, 7,044 sickness and 921 special benefits.

PERSONS ON BENEFIT AT 30th JUNE, 1951.

State.	Unemployment.		Sickness.		Special.(a)		Total.(a)		
	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Persons.
New South Wales(b)	181	65	2,158	710	104	244	2,443	1,019	3,462
Victoria ..	21	11	1,252	481	81	186	1,354	678	2,032
Queensland ..	213	50	710	212	27	104	950	366	1,316
South Australia(c)	3	..	534	180	28	33	565	213	778
Western Australia	30	20	417	112	11	42	458	174	632
Tasmania ..	9	1	228	50	6	55	243	106	349
Total ..	457	147	5,299	1,745	257	664	6,013	2,556	8,569

(a) Excludes migrants receiving benefits. (b) Includes Australian Capital Territory. (c) Includes Northern Territory.

(ii) *Number of Persons admitted in each State.* The following table shows the number of persons in each State admitted to benefit during the years 1949–50 and 1950–51 :—

PERSONS ADMITTED TO BENEFIT.

State.	Unemployment.		Sickness.		Special.(*a*)		Total.(*a*)		
	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Persons.
	1949–50.								
New South Wales*b*	103,599	23,901	18,263	6,030	2,016	435	123,878	30,366	154,244
Victoria ..	854	183	11,217	3,903	449	323	12,520	4,409	16,929
Queensland ..	14,818	5,023	7,837	2,013	459	191	23,114	7,227	30,341
South Australia(*c*)	5,534	978	5,030	1,279	355	80	10,919	2,337	13,256
Western Australia	5,308	752	4,328	1,102	166	60	9,802	1,914	11,716
Tasmania ..	135	16	2,331	509	84	42	2,550	567	3,117
Total ..	130,248	30,853	49,006	14,836	3,529	1,131	182,783	46,820	229,603
	1950–51.								
New South Wales*b*	5,605	601	17,722	5,805	680	316	24,007	6,722	30,729
Victoria ..	1,004	141	10,974	3,741	525	354	12,503	4,236	16,739
Queensland ..	3,235	447	7,873	1,811	308	98	11,416	2,356	13,772
South Australia(*c*)	75	9	4,608	1,060	211	43	4,894	1,112	6,006
Western Australia	586	118	4,334	1,004	115	34	5,035	1,156	6,191
Tasmania ..	71	12	2,102	376	60	41	2,233	429	2,662
Total ..	10,576	1,328	47,613	13,797	1,899	886	60,088	16,011	76,099

(*a*) Excludes benefits granted to migrants. (*b*) Includes Australian Capital Territory. (*c*) Includes Northern Territory.

(iii) *Benefits Paid.* The following table shows the benefits paid in respect of each class of benefit in each State during each of the years 1949–50 and 1950–51 :—

BENEFITS PAID.

(£.)

State.	Unemployment.		Sickness.		Special.(*a*)		Total.(*a*)	
	1949–50.	1950–51.	1949–50.	1950–51.	1949–50.	1950–51.	1949–50.	1950–51.
New South Wales(*b*)	1,064,698	25,324	307,315	296,418	176,698	50,303	1,548,711	372,045
Victoria.. ..	6,666	7,731	217,783	197,719	141,277	98,529	365,726	303,970
Queensland ..	141,446	22,485	111,840	96,540	10,707	9,232	263,993	128,257
South Australia(*c*)	33,089	350	83,825	70,770	15,005	5,558	131,919	76,678
Western Australia	18,163	5,360	58,323	53,911	76,402	61,507	152,888	120,778
Tasmania ..	2,010	1,194	36,928	30,358	4,249	3,924	43,187	35,476
Total ..	1,266,072	62,444	816,014	745,716	424,338	229,053	2,506,424	1,037,213

(*a*) Includes amounts paid in respect of migrants. (*b*) Includes Australian Capital Territory. (*c*) Includes Northern Territory.

§ 7. Reciprocity with New Zealand.

1. **Original Agreement.**—A reciprocal agreement between Australia and New Zealand in respect of invalid and age pensions and the corresponding benefits in New Zealand came into operation from 1st September, 1943 under the provisions of the Invalid and Old-age Pensions (Reciprocity with New Zealand) Act 1943.

2. **Existing Agreement.**—A new agreement between the two countries was signed on 15th April, 1949, and was given effect from 1st July, 1949 by the Social Services (Reciprocity with New Zealand) Regulations. The Invalid and Old-age Pensions (Reciprocity with New Zealand) Act 1943 was repealed from the latter date by the Social Services Consolidation Act 1949.

The new agreement covers age, invalid and widows' pensions, child endowment and unemployment and sickness benefits in Australia and the corresponding benefits in New Zealand. It provides a new basis of entitlement for reciprocal benefits which is, broadly speaking, that citizens of one country who take up permanent residence in the other country shall be entitled to the social service benefits of the new country on the same basis as citizens of that country. For this purpose residence in New Zealand is regarded as residence in Australia (and *vice versa*); a person born in New Zealand is regarded as a person born in Australia (and *vice versa*); and permanent incapacity or blindness which occurred in New Zealand is treated as if it had occurred in Australia (and *vice versa*).

Persons going from one country to the other for temporary residence continue to receive any benefits which they have been receiving in their own country. The home country continues to provide the benefits during these temporary periods, but the payments are made, on an agency basis, by the country in which the person is temporarily resident.

B. OTHER SERVICES.

§ 1. Benevolent and Destitute Asylums.

1. **General.**—The public provisions for the care of indigent old people have been a feature of the social development of recent years in most countries. Numerous establishments exist in Australia for the housing and protection of persons no longer able to provide for themselves. These institutions are supported by Government and municipal aid, public subscriptions, bequests, etc.; while in many cases relatives of poor and afflicted persons contribute to their maintenance.

An entirely satisfactory statistical tabulation in regard to all forms of charitable aid is especially difficult in the case of benevolent institutions, because the services provided by these institutions are not always identical.

2. **Principal Institutions.**—Particulars respecting the accommodation and the number of inmates of the principal institutions were published in earlier issues of the Official Year Book (*see* No. 22, p. 485).

3. **Revenue and Expenditure.**—Details regarding revenue and expenditure for the year 1949–50 are given in the following table :—

BENEVOLENT ASYLUMS : REVENUE AND EXPENDITURE, 1949–50.

(£.)

Particulars.	N.S.W. (*a*)	Vic. (*b*)	Q'land.	S. Aust.	W. Aust.	Tas.	Total.
Revenue—							
Government Aid	250,256	347,149	179,594	33,979	29,412	52,854	893,244
Municipal Aid ..	..	1,095	..	..	..	..	1,095
Public Subscriptions, Legacies	..	41,347	20,343	24	729	..	62,443
Fees (*c*) ..	202,562	70,670	96,820	23,815	50,973	35,973	522,377
Other		10,774	27,921	2,048	65	756	
Total 1949–50	152,818	471,035	324,678	59,866	81,179	89,583	1,479,159
1948–49	*d* 383,543	*e* 261,016	250,880	60,081	78,432	82,142	1,116,094
Expenditure—							
Salaries and Wages ..	452,818	220,065	124,611	33,264	44,630	49,181	1,488,349
Upkeep and Repair of Buildings ..		15,982	11,898	6,201	3,875	1,197	
All Other(*f*) ..		232,794	199,553	20,401	32,674	39,205	
Total 1949–50	452,818	468,841	336,062	59,866	81,179	89,583	1,488,349
1948–49	*d* 383,543	*e* 272,444	264,100	60,081	78,432	82,142	1,140,742

(*a*) These figures relate to the three State hospitals and homes only. (*b*) Year ended 31st March, 1950. (*c*) Includes Commonwealth Hospital Benefits and Age and Invalid Pension receipts. (*d*) Year 1948. (*e*) Nine months ended 31st March, 1949. (*f*) Includes £95,431 in Victoria, £32,987 in Queensland, £1,567 in South Australia and £1,663 in Western Australia, covering such items as purchases of land, cost of new buildings and additions to buildings.

§ 2. Orphanages, Industrial Schools, etc.

1. **General.**—The methods of caring for orphans and neglected children differ extensively, inasmuch as some of the children are more or less segregated in orphanages and industrial schools, while others are boarded out with their mothers or female relatives or with approved foster-mothers. The children in orphanages and similar institutions may receive, in addition to primary education, some craft training. In all cases employment is found for the children on their discharge from the institution, and they remain for some time under the supervision of the proper authorities. The conditions under which orphans, neglected children and children boarded out live are subject to frequent departmental inspections.

2. **Principal Institutions.**—Particulars concerning the principal institutions in each State were published in earlier issues of the Official Year Book (*see* No. 22, p. 486).

3. **Transactions of State Departments.**—The following table summarizes the transactions of State Departments during 1949–50 in connexion with children under their control or supervision. In addition to neglected children, the figures include

uncontrollable and convicted children who are wards of a Government authority, as well as poor children whose parents obtain assistance from the Government without giving up the legal right of custody :—

CHILDREN UNDER GOVERNMENT AUTHORITY : SUMMARY, 1949–50.

Particulars.	N.S.W.	Vic. (a)	Q'land.	S. Aust.	W. Aust.	Tas.	Total.
A. Children maintained or subsidized by the State.							
In State shelters, industrial schools, reformatories, etc.(b)	670	246	1,093	293	30	53	5,154
In licensed or approved institutions	718	1,382		5	444	220	
Boarded out—							
With own mothers ..	6,591	2,403	3,216	46	15	..	12,271
With licensed foster-mothers, guardians, relatives and friends	1,393	465	341	1,503	276	141	4,119
Total children maintained or subsidized by the State	9,372	4,496	4,650	1,847	765	414	21,544
B. Children not maintained or subsidized by the State.							
In licensed or approved institutions	1,264	..	..	43	690	..	1,997
Boarded out	243	..	..	1,586	357	..	2,186
On probation (from Institutions or Children's Courts)	2,022	1,149	122	137	291	..	3,721
In service or apprenticed	96	209	261	31	157	..	754
Adopted or otherwise placed	397	129	18	646	68	..	1,258
Total children not maintained or subsidized by the State	4,022	1,487	401	2,443	1,563	..	9,916
Total children under State control or supervision ..	13,394	5,983	5,051	4,290	2,328	414	31,460
	£	£	£	£	£	£	£
Gross cost of children's relief	646,775	231,330	197,740	143,735	43,477	16,885	1,279,942
Receipts from parents' contributions, etc. ..	51,818	23,809	15,442	24,181	10,481	2,129	127,860
Net cost to State,							
1949–50 ..	594,957	207,521	182,298	119,554	32,996	14,756	1,152,082
1948–49 ..	563,348	214,956	178,073	105,892	27,910	14,641	1,104,820

(a) Year ended 31st December, 1949. (b) Includes inmates of hospitals.

The total expenditure on children's relief in the foregoing table shows considerable variation amongst the States owing to the different methods of treating assistance to mothers with dependent children. In South Australia, Western Australia and Tasmania large amounts have been excluded from the total expenditure on this account owing to the difficulty of obtaining separate amounts for allowances made in respect of the dependent children only.

§ 3. Protection of Aborigines.

For the protection of the aboriginal Australian race there are institutions, under the supervision of Aborigines Boards, where these people are housed and encouraged to work, the children receiving elementary education. The work is usually carried on at mission stations, but many of the natives are nomadic, and receive food and clothing when they call, whilst others but rarely come near the stations. The native race is extinct in Tasmania. The expenditure from Consolidated Revenue in 1949–50 was as follows (figures in brackets are for year 1948–49) :—New South Wales, £97,146 (£80,478) ; Victoria, £8,413 (£7,626) ; Queensland, £293,099 (£233,114) ; South Australia, £45,362 (£26,988) ; Western Australia, £140,761 (£96,261) ; Northern Territory, £74,334 (£53,420) ; Australian Capital Territory, £1,292 (£1,158 ; total for Australia, £640,412 (£499,045).

§ 4. Royal Life Saving Society.

In each of the State capitals, " centres " of the Royal Life Saving Society have been established, and in some States sub-centres have also been established in the larger provincial districts. In 1934 an Australian Federal Council of this Society was formed with head-quarters at Melbourne, and each State centre, or branch, as it is now called, is controlled by the new organization. Saving of life from drowning and other forms of asphyxiation is the object of the Society, and its immediate aims are (*a*) educative and (*b*) remedial. The encouragement of swimming and life-saving in schools, colleges, clubs, etc., will bring about a more widespread knowledge of these necessary matters, and there is increasing provision of life-belts, reels, lines, warning provisions, and other first-aid appliances on ocean beaches, wharves and other suitable places. Numerous certificates of proficiency in various grades are issued annually after examination throughout Australia, the number for the individual States for 1948–49 being :—New South Wales, 9,272 ; Victoria, 4,701 ; Queensland, 2,098 ; South Australia, 751 ; Western Australia, 357 ; Tasmania, 1,325.

§ 5. Royal Humane Society.

The Royal Humane Society of Australasia has as its main object the granting of awards to all who with bravery, skill and perseverance promptly risk their own lives in saving or attempting to save those of their fellow creatures. The classes of awards are (*a*) Gold Medal, (*b*) Silver Medal, (*c*) Bronze Medal, (*d*) Certificate of Merit, and the Clark Medal for the outstanding case of the year. About 75 awards are made annually.

§ 6. Other Charitable Institutions.

Owing to the variety of name and function of other charitable institutions it has been found impracticable to give detailed results. The aid given in kind—food, clothing, tools of trade, etc.—is considerable, whilst the shelter and treatment afforded range from a bed for a night for casual callers in establishments ministering minor charity, to indoor treatment over long periods in those that exist for the relief of the aged and the infirm. The institutions not so particularized include asylums for the deaf, dumb and blind, infant homes, homes for the destitute and aged poor, industrial colonies, night shelters, crèches, rescue homes for females, free kindergartens, auxiliary medical charities, free dispensaries, benevolent societies and nursing systems, ambulance and health societies, boys' brigades, humane and animals' protection societies, prisoners' aid associations, shipwreck relief societies, bush fire, flood and mining accident relief funds, etc.

CHAPTER X.

THE TERRITORIES OF AUSTRALIA.

GENERAL.

The Territories under the control of Australia are: The Northern Territory; the Australian Capital Territory; Papua (formerly British New Guinea); Norfolk Island; the Territory of New Guinea (under Trusteeship Agreement with the United Nations); Nauru (under Trusteeship Agreement with the United Nations); the Territory of Ashmore and Cartier Islands; Macquarie and Heard Islands; and the Australian Antarctic Territory. (For details regarding the acquisition of these Territories by the Commonwealth, *see* pp. 6–8 of this volume.)

THE NORTHERN TERRITORY.

§ 1. Area and Population.

1. **Area.**—Upon the extension of New South Wales westward to the 129th meridian in 1825, the Northern Territory was incorporated in that colony, but in 1863 was annexed by Royal Letters Patent to the province of South Australia. With the adjacent islands, it was transferred to the Commonwealth on 1st January, 1911. The total area is 523,620 square miles, or 335,116,800 acres—about six times as large as Victoria.

2. **Population.**—(i) *Europeans.* At the Census taken in 1881 there were only 670 Europeans in the Territory. The number increased slowly, reaching 3,767 persons in 1918. At the Census of 1933 the white population had decreased to 3,306. This number, however, was 34.5 per cent. greater than the figure at the census of 1921. At the Census of 1947 it had risen to 9,116, an increase of 176 per cent. on the 1933 figures.

(ii) *Non-Europeans.* The number of full-blood non-Europeans, excluding Australian aboriginals, in the Northern Territory on 30th June, 1947 was 388, of whom 250 were Chinese, the remainder being mainly Filipinos (47), Fijians (23), Japanese (21), and Malays (20). There were at one time over 4,000 Chinese in the Territory.

The half-caste population recorded at the Census of 1947 numbered 1,364, of whom 1,247 were half-caste Australian aboriginals. Corresponding figures at the 1933 census were, respectively, 800 and 743.

(iii) *Total Population.* The estimated population at 31st December in each of the years 1939 and 1946 to 1950, is shown in the following table:—

NORTHERN TERRITORY: ESTIMATED POPULATION (EXCLUDING FULL-BLOOD ABORIGINALS).

31st December.	Males.	Females.	Total.
1939	5,136	2,151	7,287
1946	7,263	3,379	10,642
1947	7,403	3,588	10,991
1948	8,065	4,429	12,494
1949	8,728	5,122	13,850
1950	9,520	5,611	15,131

The population at the Census of 30th June, 1947, was 7,378 males and 3,490 females, total 10,868.

(iv) *The Aboriginals.* The total number of full-blood aboriginals at 30th June, 1951 was estimated at 12,200, of whom approximately 2,850 were in regular employment. Part-aboriginals who are subject to the Aboriginals Ordinance numbered about 2,000. There are fifteen "aboriginal" reserves, comprising an area of approximately 66,000 square miles. (*See also* Chapter XIII.—Population.)

§ 2. Legislation and Administration.

On 1st January, 1911 the Territory was transferred by South Australia to the Commonwealth. The terms are outlined in Official Year Book No. 15, p. 940. For particulars of the administration up to the Northern Territory (Administration) Act 1931, when it was placed in the hands of an Administrator, residing at Darwin, *see* Official Year Book No. 38 and earlier issues.

An amendment to the Northern Territory (Administration) Act, assented to in June, 1947, enabled the Northern Territory to set up a Legislative Council. The Council consists of the Administrator, seven official members (nominees of the Administrator) and six members elected from five districts (two from Darwin district). The normal term of office of the elected members is three years. The Council is able to make ordinances for the Territory, but it must submit each one to the Administrator for assent. The Administrator may, or may not, assent, or he may refer the ordinance to the Governor-General. The Governor-General may also disallow any ordinance assented to by the Administrator within six months from the date of assent. Ordinances that (1) grant or dispose of Crown lands, (2) make leases or grants of land or money, donations or gratuities to the Administrator, or (3) relate to aboriginals or aboriginal labour, must contain a clause suspending their operation until the signification of the Governor-General's pleasure thereon. All ordinances must be laid before Parliament after assent. Money votes may be proposed in the Council only by the Administrator himself, or by his permission or direction.

The Territory elects a member to the House of Representatives, who may take part in debates, but may not vote, except on a motion for the disallowance of any ordinance of the Northern Territory or on any amendment of any such motion.

§ 3. Physiography.

1. **Tropical Nature of the Country.**—The Territory is within the torrid zone, with the exception of a strip 2½ degrees wide which lies south of the Tropic of Capricorn.

2. **Contour and Physical Characteristics.**—The low flat coast-line seldom reaches a height of 100 feet. Sandy beaches and mud flats, thickly fringed with mangroves, prevail. Sandstone, marl and ironstone form the occasional cliffy headlands. The sea frontage of more than 1,000 miles is indented by bays and inlets and intersected by numerous rivers, many of which are navigable for considerable distances from their estuaries.

The principal features of the coast-line are enumerated in Official Year Book No. 1, p. 66; the rivers in No. 2, p. 76; the mountains in No. 3, p. 67; the lakes in No. 4, pp. 77, 78; the islands in No. 5, pp. 71, 72; and the mineral springs in No. 6, p. 65.

Inland, the country generally is destitute of conspicuous landmarks. From the coast there is a general rise southwards to the vicinity of the 17th or 18th parallel of south latitude, where the higher lands form the watershed between the rivers that flow northwards to the sea and those that form the scanty supply of the interior systems. Towards the centre of the continent the land over a wide area is of considerable elevation, and there are several mountain ranges, generally with an east and west trend.

§ 4. Climate, Fauna and Flora.

1. **The Seasons.**—There are two main climatic divisions—the wet season, November to April, and the dry season, May to October, with uniform and regular changes of weather. Nearly the whole of the rainfall occurs in the summer months. Fuller particulars appear in Official Year Book No. 6, p. 1116.

2. **Fauna.**—The ordinary types of native Australian fauna inhabit the Territory. As elsewhere on the continent, the higher *Theria* are rare, but marsupials, birds, crocodiles, fresh-water tortoises, snakes (mostly non-venomous) and frogs abound. There are many varieties of freshwater fish and littoral mollusca. Butterflies and beetles are strongly represented. The white ant is a pest, anthills in the Territory sometimes attaining great dimensions. Mosquitoes and sandflies are very troublesome, particularly in the wet season. Native fauna are in some cases protected. Buffalo formerly existed in large herds, but their number has been greatly reduced by indiscriminate shooting. Buffalo shooting is now controlled.

3. **Flora.**—The vegetation is North Australian in type, but a number of the forms belong to the Malayan and Oceanic regions. The timber trees are not of great commercial value, but in the coastal regions tropical vegetation grows luxuriantly to the water's edge. In the north, cypress pine, bloodwood and paperbark timbers are now cut and milled for local building purposes. These three timbers are resistant to termites. On the wide expanses of plain country in the interior there is little vegetation, the principal orders represented being :—*Euphorbiaceae, Compositae, Convolvulaceae, Rubiaceae, Goodenoviaceae, Leguminosae, Utricaceae.*

Fuller particulars regarding fauna and flora are given in Official Year Book No. 6, pp. 1116–7.

§ 5. Production.

1. **Agriculture.**—Up to the present agriculture has made little progress in the Territory, although it has been proved that rice, tobacco, coco-nuts, mangoes, bananas, cotton, various fodder plants, and peanuts can be successfully grown. Expense of harvesting is, at present, an obstacle to the economic production of rice, and until labour-saving machinery is procured it cannot be produced with profit. There is a large stretch of first-class coco-nut land on the coast, but hitherto planting has not been attempted on a commercial scale. For the encouragement of primary production a Primary Producers' Board was established in 1931. After the end of the 1939–45 War, returned servicemen and others began to grow with some initial success vegetables, fruit and other crops in the Darwin environs and as far south as Katherine. Vegetables grown were of consistently good quality and found ready local markets. In 1949 a group of Queensland farmers began an experiment in large-scale sorghum growing near Newcastle Waters, but the experiment has been unsuccessful for the first two seasons.

2. **Pastoral Industry.**—The pastoral possibilities of certain parts of the Northern Territory were recognized at an early date, and in 1866 stock was brought into the Macdonnell Range country from South Australia. Six years later cattle were moved from Queensland to the northern parts of the Territory, and in 1879 Giles reached the Katherine River with 2,000 head of cattle and 12,000 sheep from South Australia. For various reasons sheep-raising did not succeed. The cattle industry, however, progressed steadily and development of stock routes and other plans for the expansion of the industry are continuing.

Cattle exported during 1950–51 numbered 145,638—98,711 to Queensland, 40,835 to South Australia, and 6,092 to Western Australia. Importations of live-stock were :—bulls, 813 ; other cattle, 1,385 ; stallions, 2 ; other horses, 2,862 ; rams, 67 ; other sheep, 806.

The estimated number of live stock in the Territory at the end of the years 1939 and 1946 to 1950 is given in the table hereunder :—

NORTHERN TERRITORY : LIVE STOCK.

31st December—	Horses.	Cattle.	Sheep.	Pigs.	Goats.	Camels.	Donkeys.	Mules.
1939 ..	32,721	922,581	38,587	483	20,335	331	1,443	366
1946 ..	30,019	972,990	28,005	208	11,914	296	1,621	513
1947 ..	32,318	991,429	19,058	680	15,260	193	1,232	632
1948 ..	33,197	1,052,811	25,791	384	14,045	173	1,192	609
1949 ..	32,904	1,048,875	25,725	419	12,102	165	935	466
1950 ..	29,366	1,019,149	28,888	1,122	12,329	94	918	603

3. **Hides and Skins.**—The number of hides and skins exported from the Northern Territory during 1950–51 was as follows :—buffalo, 7,984 ; sheep, 1,050 ; crocodile, 3,203 ; goat, 60 ; snake, 150 ; and donkey, 71. In addition, a considerable number of kangaroo skins were exported, but details are not available.

4. **Mining.**—(i) *General.* Alluvial gold digging in the Northern Territory commenced in 1869 and in 1881 maximum production was achieved when the yearly return was valued at £111,945. All of this production was confined to the northern part of the Territory. The production of metals, other than gold, has suffered on account of the vagaries of prices, and the high cost of transport. At present, Tennant Creek is the principal producer of gold. Three batteries operated by companies and one Government battery are in operation. This area is noted for its rich patches of ore. The Harts Range Mica Field which was found in 1892 continues to produce the bulk of the Australian high grade mica. Wolfram mining has increased since considerable rises in the price of wolfram concentrates occurred during late 1950 and early 1951. A Government treatment plant has commenced operations at Hatches Creek. Copper production has increased considerably from various copper producing fields. High grade copper ore is now supplied to fertilizer companies for use as a trace element. Tin concentrates were produced from the Maranboy Field, where a Government battery is in operation.

(ii) *Mineral Production.* The following table shows the value of mineral production for the years 1946 to 1950 compared with 1939 :—

NORTHERN TERRITORY : MINERAL PRODUCTION.

(£.)

Year.	Gold.	Tin Concentrates.	Ochre.	Copper Ore.	Mica.	Wolfram.	Tantalite.	Silver-lead.	Total Value all Minerals.
1939	163,414	4,487	607	2,248	15,539	58,183	..	..	244,478
1946	105,376	3,228	1,983	6,282	27,969	21,696	..	..	166,543
1947	118,563	4,698	2,564	..	62,547	41,020	45	..	229,437
1948	163,482	12,055	2,374	7,370	75,796	30,780	814	1,407	294,078
1949	369,027	10,138	501	145,839	52,014	20,521	240	973	599,253
1950	543,121	15,139	4,199	56,741	61,813	25,647	520	883	708,063

5. **Pearl and Other Fisheries.**—In 1884 mother-of-pearl-shell was discovered in the harbour of Port Darwin. Difficulty in working, principally through heavy tides and muddy water, retarded the development of the industry for many years. The production of pearl-shell has declined rapidly since 1937–38. The production for 1939–40 amounted to only 179 tons, valued at £14,350, compared with 804 tons, £67,000, in 1937–38 and 410 tons, £31,500, in 1938–39. In view of the importance of the industry it was included in the terms of reference of the Northern Australia Development Committee, which placed before the Minister for the Interior recommendations of a conference of interested bodies in March, 1946 on such matters as labour, boats and equipment, financial assistance, the marketing problem and economic survey, institution of administrative arrangements and biological investigations.

In 1947–48, eleven vessels resumed fishing for pearl-shell. Inexperienced crews and initial difficulty in locating good deposits of shell were given as the reasons for a disappointing return—45 tons to December, 1948. Owing, however, to the high price (up to £600 per ton for first grade shell) offering at that time, the value of the catch was estimated at £22,500. For the 1951 season buyers have offered up to £800 per ton for first grade shell.

Darwin continues to provide a firm and ready local market for fish. The lack of suitable refrigerating plants on the fishing-boats is responsible for the deficiency of regular supplies of fish, except in limited quantities obtained from traps close to the town.

§ 6. Land Tenure.

1. **General.**—A description of the system of land tenure in force in the Territory in 1928 was given in Chapter V.—Land Tenure and Settlement, Official Year Book No. 22. This description has been brought up-to-date in the following three paragraphs.

2. **Pastoral, Agricultural, etc., Leases.**—(i) *Pastoral Leases.* A pastoral lease may be granted for such term, not exceeding 42 years, as the Administrator determines. The rental for the first period is fixed by the Administrator, and is subject to re-appraisement on such dates as are specified in the lease or as are prescribed.

(ii) *Agricultural Leases.* Agricultural lands are classified, and the maximum area which may be included in any one lease is as follows :—Division A, Cultivation Farms, Class 1, 1,280 acres, Class 2, 2,560 acres : Division B, Mixed Farming and Grazing, Class 1, 12,800 acres, Class 2, 38,400 acres. Agricultural leases are granted in perpetuity, and the rent for the first period is fixed by the Administrator, and is re-appraised every 21 years. The lessee must—(*a*) in the case of lands for mixed farming and grazing, stock the land to the extent prescribed by the regulations and keep it so stocked ; (*b*) establish a home within 2 years and reside on the leased land for 6 months in each year in the case of land for cultivation, and for 4 months in each year in the case of land for mixed farming and grazing ; (*c*) cultivate the land to the extent notified by the Administrator ; and (*d*) fence the land as prescribed.

(iii) *Leases of Town Lands.* Except in Darwin, leases of town lands are granted in perpetuity, the rental being fixed every 14 years. Such leases must, in the first instance, be offered for sale by public auction, and if not so sold, may be allotted by the Administrator to any applicant, at the rental fixed by the Administrator. The lessee must erect, within such time as is notified, buildings to the value specified in the conditions of sale. Leases in the town of Darwin are granted for periods up to 99 years under the Darwin Town Area Leases Ordinance 1947. Short-term leases of up to 5 years' duration are also granted in the Darwin area under the Darwin Short-term Leases Ordinance 1946.

(iv) *Miscellaneous Leases.* The Minister may grant a lease of any portion of Crown lands, or of any dedicated or reserved lands, for any prescribed or approved purpose. Such leases are for a term not exceeding 21 years, and may be offered for sale by public auction, or granted to an applicant at an annual rental fixed by the Administrator. Leases of garden lands may be granted over areas within 10 miles of a town, provided the Administrator has declared the area as garden lands.

(v) *Grazing Licences.* Licences may be granted to graze stock on Crown lands for such period, not exceeding one year, as is prescribed, and at the rent and on the conditions specified.

(vi) *Occupation Licences.* Licences may be granted for any period not exceeding 5 years, and on specified rentals and conditions, for the purpose of drying or curing fish, or for any manufacturing or industrial purpose, or for any prescribed purpose.

(vii) *Miscellaneous Licences.* The Administrator may grant licences for miscellaneous purposes for a period not exceeding 12 months on prescribed terms and conditions.

(viii) *Leases to Aboriginals.* The Governor-General may grant to any aboriginal native, or to the descendant of any aboriginal native, a lease of Crown lands not exceeding 160 acres for any term of years upon such terms and conditions as he thinks fit.

3. Mining Leases, etc.—(i) *General.* Mining generally is governed by the Mining Ordinance 1939–1947, and special Ordinances have been promulgated by the Commonwealth respecting mining for mineral oil and coal, encouragement of mining, inspection and regulation of mining and inspection of machinery.

(ii) *Holdings under Miners' Rights.* The fee for a miner's right is 5s. for 12 months from the date of issue, and a holder thereof is entitled to occupy Crown lands for mining purposes, to construct races, to divert water, to reside on his holding, etc.

(iii) *Gold-mining Leases.* The area of a gold-mining lease must not exceed 20 acres, and the term is 21 years, renewable for a further 21 years. The rent is 2s. per acre per annum. A royalty of 3d. in the £ on the gross value of all gold and minerals won must be paid, and leases must be worked constantly by not less than 2 men for the first 12 months and thereafter by not less than 1 man for every 5 acres with a minimum of 2 men, unless exemption is obtained.

(iv) *Mineral Leases.* Mineral leases may be granted in blocks not exceeding 40 acres each. A mineral lease is issued for the same term as a gold-mining lease, with similar right of renewal. The rent is 1s. per acre per annum, and the royalty on minerals is the same as in the case of a gold-mining lease, except that payment was suspended as a war-time measure, and such temporary suspension still obtains.

(v) *Dredging Claims.* These claims may be granted for dredging for gold or minerals at a rental of 2s. per acre per annum. The maximum area of each claim must not exceed 300 acres, and 6 months after registration the holder must employ continuously on the claim not less than 3 men and fully manned machinery valued at not less than £1,000.

(vi) *Mineral Oil and Coal Licences.* A licence to search for mineral oil or coal, or for both, may be granted over an area not exceeding 1,000 square miles for a period of 5 years on payment of an annual fee of £10. At least 4 white men must be employed for not less than 6 months in each year. A holder of a mineral oil licence who discovers payable mineral oil on the land held under his licence has a preferential right to a mineral oil lease of 160 acres, together with a reward area of 640 acres thereon. A discoverer of coal in payable quantities has a preferential right to an area of 640 acres as a coal lease.

(vii) *Mineral Oil and Coal Leases.* Leases may be granted for a period of 21 years, renewable for a further 21 years, for mining for mineral oil or coal, the maximum areas being (*a*) for mineral oil, 160 acres; and (*b*) for coal, 640 acres. In the case of mineral oil and coal, the annual rent is 1s. per acre, and a royalty of 5 per cent. on the gross value of all crude oil obtained is payable; the lessee must also work the land to the satisfaction of the Minister. In the case of coal, the royalty and conditions are fixed by regulation.

(viii) *Business and Residence Areas.* A business area may be granted at the prescribed fee and authorizes the holder to occupy on a gold-field or mineral field, for the purpose of residence and carrying on his business, an area not exceeding 1 acre, provided that when the area is for residence only it shall not exceed one-quarter of an acre.

(ix) *Garden Areas.* The warden may grant market garden areas upon any gold-field or mineral field for the purpose of growing fruit or other garden produce. The conditions as to rent, etc., are as prescribed, but the area of each garden area must not exceed 5 acres.

4. Areas Occupied, Reserved, etc.—Areas occupied, reserved and unoccupied at 30th June, 1951 totalled 335,116,800 acres, 455,322 of which were alienated and 171,841,055 leased or held under licence (pastoral, 129,266,284; other tenures, 42,574,771). Reserves amounted to 45,647,537 acres and 117,172,886 acres were unoccupied and unreserved. Land revenues collected for the year amounted to £65,649.

§ 7. Commerce, Shipping and Air Services.

1. **Trade.**—No record is kept of the trade between the States and the Territory. The value in Australian currency of the direct oversea imports and exports for 1901 and for the years 1938–39 and 1946–47 to 1950–51 is shown hereunder :—

NORTHERN TERRITORY : OVERSEA IMPORTS AND EXPORTS.
(£.)

Items.	1901.	1938–39.	1946–47.	1947–48.	1948–49.	1949–50.	1950–51.
Imports	37,539	36,831	89,204	277,779	267,108	766,564	639,666
Exports	29,191	12,729	17,098	73,239	21,943	11,042	9,053

2. **Shipping.**—The Territory is dependent for its shipping facilities on a quarterly visit by a ship of the Australian Shipping Board from the Eastern States and a monthly service from Western Australia by ships of the Western Australian State Shipping Service. Pearling vessels and other small craft also use the port. The following table shows the number of entrances and clearances and aggregate net tonnages of oversea and interstate vessels for the port of Darwin during the years 1938–39 and 1946–47 to 1950–51 :—

NORTHERN TERRITORY : SHIPPING.

Year.	Entrances.		Clearances.	
	Number.	Net Tons.	Number.	Net Tons.
1938–39	161	181,961	172	179,422
1946–47	23	50,890	23	48,136
1947–48	31	51,552	33	56,062
1948–49	24	42,025	23	39,817
1949–50	39	60,316	41	66,001
1950–51	33	57,685	28	46,807

3. **Air Services.**—Darwin is the first port of arrival in Australia for virtually all aircraft from Europe and Asia. Qantas Empire Airways Ltd. (under contract to the Commonwealth Government) operates, through Darwin, a Sydney–Singapore–London passenger service ; a freight service to London ; a Sydney–Hong Kong–Japan service ; and a Sydney–Manila–Japan service. British Overseas Airways Corporation operates a London–Singapore–Sydney service, and Australian National Airways, in conjunction with Air-Ceylon, operates a service to London. Both these services call at Darwin. Regular inland services calling at Darwin are Trans-Australia Airlines (Adelaide–Darwin and Brisbane–Darwin), and MacRobertson-Miller Aviation, which runs regular services between Darwin and Perth, and Darwin and Wyndham. Now established as a first-class international airport, Darwin is also visited by aircraft from many other oversea airlines, besides privately-owned machines.

§ 8. Internal Communication.

1. **Railways.**—Under the agreement made between the Commonwealth and the State of South Australia for the transfer of the Northern Territory, which was ratified by the Northern Territory Acceptance Act 1910, the Commonwealth was to construct the Northern Territory portion of the transcontinental railway line (connecting Adelaide and Darwin via Port Augusta).

The northern line from Adelaide terminates at Alice Springs, about 192 miles north of the southern boundary of the Territory. The Commonwealth Government acquired, on 1st January, 1911, the property in the line from Port Augusta to Oodnadatta (478 miles), and on 1st January, 1926 the control thereof was transferred to the Commonwealth Railways Commissioner. The line from Darwin to Katherine River, about 200 miles, has been extended as far as Birdum, 316 miles from Darwin.

The Clapp plan for the standardization of Australian railways recommended, *inter alia*, the construction of a standard gauge (4 ft. 8½ in.) strategic and developmental railway between Dajarra (Queensland) and Birdum, and the conversion to standard gauge of the Birdum–Darwin line but not the conversion of the Port Augusta–Alice Springs line nor the construction of a 4 ft. 8½ in. line between Alice Springs and Birdum. Provision for both of the last two projects, however, was included in the Railway Standardization Agreement Act 1946, involving the Commonwealth and the States of New South Wales, Victoria and South Australia. The Birdum–Dajarra project is dependent on the completion of the Queensland section of the general plan. The 1946 Agreement was not ratified by New South Wales, but the South Australia-Northern Territory projects were provided for in a subsequent separate agreement with South Australia.

2. **Roads.**—During the war, roads were built connecting Alice Springs with Darwin, and Mount Isa (Queensland) with Tennant Creek. The first of these roads, known as the North–South Road or Stuart Highway, is 954 miles long, and runs via Larrimah and Tennant Creek. The Mount Isa–Tennant Creek Road (Barkly Highway) is 403 miles long. Both were used extensively during the war, the Stuart Highway, in particular, experiencing very heavy and continuous traffic. Since the war, the Stuart Highway has been used continually as a means of transporting foodstuffs and other supplies to Darwin and northern centres, and is now the main route for overland tourists and travellers from the southern States to Darwin. The introduction of road trains for the rapid transport of fat cattle and other stock to State markets has further proved the value of both the Barkly and Stuart Highways as national assets. Both roads have good water bores and communications. As part of the post-war plan to increase beef production in the Territory a new network of roads is being constructed, survey work having been commenced in 1949.

3. **Posts, Telegraphs, Telephones and Wireless.**—Postal communication is maintained by a regular service of vessels between the Territory and the Eastern States. In addition, the vessels belonging to the Western Australian State Shipping Service give a periodic service between Fremantle and Darwin. Mail is carried between the capital cities of Australia and Darwin by the airway companies operating in each State. Inland, the northern part of the Territory receives its mail via Darwin or by means of the aerial services, and the southern districts are served via Adelaide.

The transcontinental telegraph line, covering a length of 2,230 miles, runs in a northerly direction from Adelaide to Darwin, whence telegraphic communication is provided with Asia and Europe, via Banjoewangie (Java), Singapore and Madras. Between Darwin and Banjoewangie the submarine cable is duplicated.

Long-distance telephone communication between Darwin and the other capital cities of Australia was established after the outbreak of war in the Pacific.

The majority of homesteads on pastoral leases are equipped with pedal wireless sets operated under licence from the Postmaster-General's Department. These stations are in daily communication with Flying Doctor Bases situated at Alice Springs (Northern Territory), Wyndham (Western Australia) and Cloncurry (Queensland), and are used for transmission of radio-telegrams and other communications.

§ 9. Educational Facilities.

1. **General.**—The South Australian Education Department provides teachers and the curriculum for schools in the Northern Territory, while the Commonwealth Government supplies all buildings and equipment. An officer of the South Australian Education Department is on loan to the Northern Territory Administration. This officer, designated the Assistant Supervisor of Education, Northern Territory, works in close co-operation with the Administrator.

The number of teachers in the Northern Territory at 30th June, 1951 was 39, all officers of the South Australian Education Department.

When the war ended, the only schools functioning in the Northern Territory were Tennant Creek, with 30 pupils, and Alice Springs, with 120. Katherine and Pine Creek re-opened in August, 1945, and the school at Darwin re-opened in May, 1946.

The number of pupils under instruction in Public Schools on 30th June, 1951 was 1,176, of whom 310 are of native extraction and 64 of Asiatic origin.

Of marked significance is the fact that 51 per cent. of school population in Darwin and 49 per cent. in Alice Springs are below the age of nine years. This, together with the fact that the number of pre-school children in both centres is high, indicates that attendances will continue to increase, and it is estimated that by 1954 Alice Springs will have a school population of approximately 600 and Darwin 800.

It is proposed to build a " comprehensive " school at Alice Springs to take children at the infant, primary and secondary stages. A site of 11 acres has been set aside and a further 20 acres has been reserved for agricultural education. Secondary education was established at Alice Springs in 1945, with facilities for instruction in general and commercial courses to the Intermediate standard of the University of Adelaide. The secondary block in the proposed new school will have practical rooms, including woodwork, sheet metalwork, domestic arts, science laboratories, millinery, dressmaking, library and commercial.

Alice Springs is now regarded as the educational centre for the greater part of the Northern Territory. Boarding students at Alice Springs are accommodated at hostels provided by Methodist, Church of England and Roman Catholic Church organizations. A boarding allowance (£30 primary and £40 secondary) for each child is paid by the Commonwealth Government to assist parents to keep their children at school. In addition, six exhibitions are offered annually on the results of the Intermediate examinations. These exhibitions carry a subsistence allowance of £50 a year, £5 for books and return fares between home and school once a year, and are tenable at any approved secondary school in Australia.

Plans have been completed for a new primary school at Darwin, built on tropical lines. The new school will be erected on a nine acre site in the town proper. This site has been specially allocated in the Darwin town plan. It is estimated that Darwin will have 100 secondary students by 1954 and consideration is being given to building a separate technical high school in the town. A site has been set aside in the town plan for this purpose. Because of the scattered nature of Darwin, transport is provided for school children and more than 400 children are conveyed to school every day in special buses. At Alice Springs, 100 go to school each day in buses provided.

Approximately 30 per cent. of all children attending school in the Northern Territory are part-aboriginal. Relationships with other children are normal and their scholastic progress compares favourably with that of white children. A special school for full-blood aboriginal children was begun at Bagot, near Darwin, in February, 1949. Attendance at the school averages 10 to 25.

2. **Theoretical Training of Apprentices.**—The recognition that technical school training is an extension of workshop training has led to the introduction of day-time classes which apprentices attend without loss of pay. Apprentices are directed by the Apprentices Board to undertake correspondence courses conducted by the Technical Correspondence School of the South Australian Education Department, these courses covering the work prescribed for the various trades in South Australia. Syllabuses were revised thoroughly in 1950 and passed by Trade Committees and the Apprentices Board in that State.

3. **The " School of the Air ".**—The " School of the Air " was officially opened by the former Administrator, Mr. A. R. Driver, on 8th June, 1951.

Forty-one children, including some from Queensland, listen regularly and enquiries have been made from Wilcannia, New South Wales, and it is expected that children will soon be enrolled in that area.

There are five sessions each week and the programme includes stories and songs for the younger children ; numbers, spelling and language lessons ; health talks ; appreciation of music and literature ; social studies ; and a Question and Answer Session.

§ 10. Finance.

Details of revenue and expenditure of the Territory for the year 1949–50 are shown below :—

NORTHERN TERRITORY : REVENUE AND EXPENDITURE, 1949–50.
(£.)

Revenue.		Expenditure.			
Items.	Amount.	Items.	Capital Works.	Other Services.	Total.
Taxation—		**Public Debt Charges—**			
Probate and Stamp Duties	7,185	Interest (*a*)	..	239,430	239,430
		Sinking Fund(*a*) ..	..	112,188	112,188
Business Undertakings—		Other (*b*)	..	1,406	1,406
Railways—		Total	..	353,024	353,024
North Australia ..	34,880				
Central Australia ..	775,845				
Postmaster-General's Department	118,292	Business Undertakings—			
		Railways—			
Electricity Supply ..	103,177	North Australia ..	21,415	74,090	95,505
		Central Australia ..	76,654	727,689	804,343
Total	1,032,194	Postmaster-General's Department	..	123,239	123,239
Other—		Electricity Supply ..	..	152,235	152,235
Rent and Rates ..	77,068	Water Supply (*c*) ..	..	36,023	36,023
Miscellaneous	86,523	Hostels Loss	..	35,061	35,061
Total	163,591	Total	98,069	1,148,337	1,246,406
		Social Expenditure—			
		Aboriginal Affairs ..	..	101,064	101,064
		Educational Services ..	..	31,963	31,963
		Public Health and Recreation	..	234,450	234,450
		Total	..	367,477	367,477
		All Other—			
		Territory Administrations	..	503,501	503,501
		Developmental Services..	58,178	56,822	115,000
		Buildings, Works, Sites, etc.	477,198	..	477,198
		Darwin Lands Acquisition	79,790	..	79,790
		Plant and Equipment ..	91,978	..	91,978
		Municipal, Sanitary and Garbage Services ..	..	57,207	57,207
		Shipping Subsidy ..	..	4,767	4,767
		Airmail Service Subsidy..	..	10,400	10,400
		Rent, Repairs and Maintenance	..	129,880	129,880
		Total	707,144	762,577	1,469,721
Grand Total ..	1,202,970	**Grand Total** ..	805,213	2,631,415	3,436,628

(*a*) Includes Railways Interest, £195,343, and Sinking Fund, £88,170. (*b*) Loan Redemption and Conversion Expenses, Railways. (*c*) Included in Developmental Services in earlier issues.

The following table shows a summary of Northern Territory revenue and expenditure for the years 1938–39 and 1945–46 to 1949–50 :—

NORTHERN TERRITORY : REVENUE AND EXPENDITURE.
(£.)

Items.	1938–39.	1945–46.	1946–47.	1947–48.	1948–49.	1949–50.
Revenue—						
Taxation	6,375	4,578	3,834	3,314	4,951	7,185
Business Undertakings(*a*) ..	(*b*)224,001	1,049,557	589,087	576,505	886,361	1,032,194
Other	49,346	61,359	94,578	124,867	132,660	163,591
Total	279,722	1,115,494	687,499	704,686	1,023,972	1,202,970
Expenditure—						
Capital Works	273,184	95,200	599,015	533,737	690,266	805,213
Other Services—						
Public Debt Charges ..	407,304	371,949	428,146	378,566	356,201	353,024
Business Undertakings(*a*)	299,953	886,204	640,180	731,803	979,716	1,148,337
Social Expenditure ..	35,014	66,291	208,046	204,122	269,950	367,477
All Other	282,114	204,281	469,741	493,587	614,835	762,577
Total	1,297,569	1,623,925	2,345,128	2,341,815	2,910,968	3,436,628

(*a*) Includes railways operating in the Northern Territory. (*b*) Excludes electricity supply, included with "Other".

AUSTRALIAN CAPITAL TERRITORY.

1. **Introductory.**—In Official Year Books Nos. 4 and 5 information was given in Section XXXI. in regard to the events leading to the selection of the Australian Capital Territory and the necessary legislation and the progress of operations in connexion with the establishment of the capital city. The physiography of the Territory was dealt with extensively and topographical and contour maps accompanied the letterpress, as well as reproductions of the award-winning designs for the laying out of the city. On 12th March, 1913 the official ceremony to mark the initiation of operations in connexion with the establishment of the Seat of Government was carried out. At this ceremony the selection of "Canberra" as the name of the capital city was announced. The Seat of Government Acceptance Act 1909–1938 provides that the Territory shall be known as the Australian Capital Territory. (A special article contributed by Dr. F. Watson, entitled "Canberra Past and Present", appears on p. 454 of Official Year Book No. 24).

2. **Transfer of Parliament.**—On 9th May, 1927 Parliament House at Canberra was officially opened by His Royal Highness Albert, Duke of York—afterwards His Majesty King George VI.—the occasion being the 26th anniversary of the opening of the first Parliament of the Commonwealth at Melbourne by His Royal Highness George, Duke of Cornwall and York—afterwards His Majesty King George V.—on 9th May, 1901. (For particulars of the opening ceremony *see* Official Year Book No. 21, p. 604.)

3. **Administration.**—In Official Year Book No. 18 a summary is given of the development of the administration prior to the taking over of the control of the Territory by the Federal Capital Commission, and in Official Year Book No. 22 a summary is given of the administrative activities of the Federal Capital Commission.

The administration of the Territory by the Federal Capital Commission was continued until 30th April, 1930, when the Seat of Government (Administration) Act 1924–1929 was repealed, and the powers and functions of the Commission reverted to the Government.

Since April, 1932 the general control of the Territory has been exercised by the Minister for the Interior, certain specific services, however, being undertaken by the Department of Health, the Department of Works and Housing, and the Attorney-General's Department.

4. **Progress of Work.**—The general progress of the work of construction up to the time the Territory was taken over by the Commission is outlined in Official Year Book No. 18. Later progress under the Commission is described in Official Year Book No. 22.

Since the reversion of the powers and functions of the Commission to the Government in 1930, there has been great development of works in the Territory, despite the halts in activity caused by the general reduction in Governmental expenditure during the depression years, and the necessity for restricting labour and materials to purely defence purposes during the war years. A summary of the work carried out to 30th June, 1948 is given in Official Year Books Nos. 37 and 38.

During the years 1948–49 to 1950–51, the works programme has been designed to overtake further the lag in building operations caused by the war, as well as to cope with ordinary current requirements and the impetus given to Canberra's expansion by the increase in Government business generally and the gradual centralization of Departmental Head Offices in the National Capital. The programme, therefore, has had to provide for permanent and temporary housing, hostel, guest house and office accommodation, public buildings and allied engineering and electrical works and services.

To undertake this programme, the combined labour forces of the Department of Works and Housing and contractors working for the department during this time expanded from 1,900 men in 1948 to 3,200 men in 1951. Some of these men were employed building workmen's houses, both temporary and permanent structures, and erecting workmen's hostels to build up a potential labour capacity of approximately 4,000 men.

House erected during this period were :—1948–49, 285 ; 1949–50, 410 ; and 1950–51, 545. These figures include nine houses erected for the War Service Homes Division in 1949–50 and 42 erected in 1950–51. There were also 1,622 houses under construction at 30th June, 1951, in various projects. Some of the major housing projects were as follows :—

Three hundred concrete houses being erected at Turner and O'Connor ; of these, 101 had been completed, 72 were under construction and 127 had not been commenced.

One hundred timber houses at O'Connor ; 60 were under construction and 40 had not been commenced.

One hundred Econo steel houses at Narrabundah ; 41 were under construction and 59 had not been commenced.

Arrangements were progressing for the importation of 1,246 prefabricated houses from England. Contracts had already been arranged for erection of 596, of which 272 were under construction at 30th June, 1951. There were also 29 War Service Homes under construction in various localities, and 360 brick and 324 timber houses of standard types were being constructed in various suburbs.

Two groups of flats were being erected, one at Ainslie and one in the Braddon–Reid area. When completed these will provide 168 housing units of single and double bedroom flats.

Two permanent guest houses, Lawley House and Havelock House, each providing accommodation for approximately 200 persons, and two temporary units, Reid House and Narellan House, with accommodation for approximately 300 and 60 persons respectively, were completed during the period. Work was commenced also on a hostel for students attending the Forestry School at Yarralumla, which will provide accommodation for 40 students. Extensions to Acton Guest House provided additional accommodation for 30 persons, whilst two new wings, almost completed, to Hotel Acton, are designed to increase the capacity of this hotel by 50.

Hostel accommodation provided for workmen during the period by the Department of Works and Housing comprised the erection of hostels at Turner, Ainslie, Capital Hill and Fairbairn, together providing accommodation for 1,500 workmen. At the end of the period, a second hostel was under construction at Capital Hill, and this, together with extensions being made to other hostels, will accommodate a further 650 men. The hostel at Fairbairn has now been allocated to the Royal Australian Air Force for use under the National Service Training Scheme.

Other architectural works completed in the three years include the erection of a Post Office at Kingston, additions to the Bureau of Census and Statistics building at West Block, and erection of three temporary office units of wood and fibro at Barton. These three office units provide 98,000 square feet of office space and accommodate four departments employing approximately 830 persons.

As a result of the increased numbers of members of Parliament, extensive alterations and additions were made to Parliament House. Concurrently with this work, the air conditioning plant was remodelled and reinforcement of the sound reproduction system was carried out. Extensions were made to the Council for Scientific and Industrial Research Organization buildings at Black Mountain, and work commenced on a central administrative building for this authority. Further progress was made on the permanent administrative building at Parkes, and at 30th June, 1951 it was estimated that 17 per cent. of the work had been completed, including completion of the basement floor and most of the lower ground floor, and commencement of the ground floor. Work commenced on the erection of buildings for the Australian National University. University House, a large three-story building incorporating flats for the accommodation of staff, dining rooms, kitchen, refectory, secretarial quarters and sports rooms, was under construction, together with five cottages for senior professors. The Physical Sciences Building for nuclear science research, including the accelerator wing in which the cyclotron will be housed, had also been commenced. Alterations and additions to Ainslie Public School were commenced in March, 1950, and temporary fibro and wood classrooms were erected at Telopea Park and Ainslie Public Schools in December, 1950.

The major water supply project during this period was to increase the height of the Cotter Reservoir from 60 feet to 86 feet at the spillway, while wingwalls reaching 99 feet above the original stream bed were built at either end of the spillway. These extensions increased the dam's capacity from 350 million gallons to 880 million gallons, sufficient for a population of 35,000, and provided for a further extension to 1,100 million gallons capacity at a future date by installing flash boards on the spillway. Engineering and electrical works undertaken included provision of essential services to new houses and other buildings being erected in various suburbs; extensions to high and low tension electricity supply mains; construction of roads and footpaths; reconstruction of Lennox Crossing bridge; provision of services such as water supply, sewerage and drainage; runway construction and obstruction lighting improvements at Fairbairn Aerodrome; and the extension of electricity supply lines to rural areas.

5. **Forestry.**—A considerable amount of reafforestation work has been undertaken and plantations have been established at Uriarra, Mount Stromlo, Pierce's Creek, Green Hills and Kowen. Experimental plots have also been established in the Brindabella mountains.

The total area of plantations to 31st December, 1950 was 15,750 acres. Forestry operations were begun on Mount Stromlo in 1915, and up to 1925 approximately 700 acres had been planted with pine and other trees. The plantings up to this time were chiefly on aesthetic lines, but since the initiation of a wider programme, arrangements have been made for pruning and thinning, and sawmill timber is now being obtained from the logs resulting from thinning operations and clear felling of mature plantations. The yearly output of sawmill logs is gradually improving and has increased from 30,000 super. feet in 1930–31 to 10,000,000 super. feet in 1950.

In 1926 a comprehensive review was undertaken of the Territory's potentialities in regard to forest development. A system of forestry management was instituted in the existing forest areas, and a considerable amount of survey and assessment work has been completed. *Pinus radiata* has been most extensively planted, and also, as a result of experimental work, pinus areas of better quality pines on a longer rotation, such as *Pinus ponderosa* and *laricio*, have been planted during recent years, but *Pinus radiata* remains the principal species.

6. **Lands.**—(i) *General.* Reference has been made in previous issues of the Official Year Book to the general conditions of land tenure in the Australian Capital Territory and to the area of alienated and leased land.

As considerable portions of the Territory lands are not required in connexion with the establishment of the city, large areas have been leased under special improvement conditions in regard to the extermination of noxious weeds and the destruction of rabbits and other pests. The lands are classified into three grades of agricultural and three grades of grazing land. Leases may be granted for grazing, fruitgrowing, horticulture, agriculture, residential, business, or other purposes for a period not exceeding 25 years. The annual rental is 4 per cent. of the assessed value of the land, including improvements which are the property of the Crown, plus the amount of rates payable. No person may hold under lease land of a greater value than £10,000, exclusive of the value of buildings and fences thereon. About 317,869 acres comprising 472 leases and 24 grazing licences were held under lease and licence at 31st December, 1950, for periods varying from quarterly tenure to 25 years.

Under the Seat of Government (Administration) Act 1910, Crown lands in the Territory may not be sold or disposed of for any estate in freehold except in pursuance of some contract entered into before the commencement of that Act. Leases of land in the City Area are granted under the City Area Leases Ordinance 1936–1951, and leases of other lands under the Leases Ordinance 1918–1937. Land is also leased for various purposes in the City Area under the Church Lands Leases Ordinance 1924–1932, and the Leases (Special Purposes) Ordinance 1925–1943.

(ii) *City Leases.* The Government may grant leases in the city area of any Crown land for business or residential purposes. Such leases may be issued for a period not exceeding 99 years at a rental equal to 5 per cent. of the unimproved value of the land, which value is subject to re-appraisement at the expiration of 20 years, and thereafter every 20 years. A suitable building must be commenced within 6 months and completed within 12 months unless an extension of time is allowed.

Auction sales of city leaseholds are described in Official Year Book No. 22, p. 599.

Eight leases under the Church Lands Leases Ordinance 1924–1932, which require the lessees to submit a definite building programme within a specified period, and one lease under the Church of England Lands Ordinance 1926 have been granted for church purposes. A further nine leases under the Leases (Special Purposes) Ordinance 1925–1943, one lease under the City Area Leases Ordinance 1936–1947, and three leases under the Leases Ordinance 1918–1937 have been granted for church and scholastic purposes.

The total number of leases granted under the City Area Leases Ordinance, excluding surrendered leases, at the end of the year 1950 was 1,021 representing a capital value of £367,007. During the year 167 new leases were granted. The number of business and residential blocks surrendered to or determined by the Commonwealth to the end of the year was 389.

Under the terms of the City Area Leases Ordinance 1936–1951 each block is leased for a period of 99 years at a rental of 5 per cent. per annum of the unimproved capital value as assessed by the Commonwealth. At present such rentals are subject to a 20 per cent. rebate.

(iii) *In the Jervis Bay Territory.* The Commonwealth acquired from the State of New South Wales sovereign rights over the area comprising about 28 square miles of land and water at Jervis Bay for possible use as a port in connexion with the Australian Capital. The Royal Australian Naval College was established in this area on a site known as Captain's Point, but was removed in 1930 to Flinders Naval Base, Victoria. Leases have been granted over an area of 13,035 acres in the Jervis Bay Territory.

7. **Railways, etc.**—Canberra is connected with the railway system of New South Wales at Queanbeyan by a line 4¾ miles long. This line was opened for goods traffic on 25th May, 1914, and for passenger traffic on 15th October, 1923. The railway terminus is situated in the area known as Kingston.

A direct passenger service is in operation connecting Canberra with Sydney and Melbourne, and trains leave both cities for Canberra daily.

There are two companies operating air services each several times daily on the Melbourne–Canberra–Sydney route.

Regular motor-coach services link Canberra with New South Wales, Victoria and South Australia.

8. **Population.**—The census return of population on 30th June, 1938, was 11,290 in the Australian Capital Territory and 272 in the Jervis Bay Territory, or a total of 11,562 persons. The population at the Census of 30th June, 1947, was 16,905 persons—15,156 in the city area, 1,389 in the rural districts and 360 in the Jervis Bay area. A census was taken of the city area on 14th–16th September, 1951, the population then being 23,617 persons. At that time the estimated population of the Australian Capital Territory was 25,400 persons.

9. **Production.**—During 1949–50 the production of the more important items of the agricultural and pastoral industry was—Wheat, 91,641 bushels; wool, 2,123,000 lb.; butter, 6 tons; meat (bone-in weight, fresh), 2,451 tons. The numbers of live stock depastured at 31st March, 1951, were—Horses, 910; cattle, 11,477; sheep, 256,200; and pigs, 642.

10. **Educational Facilities.**—Arrangements exist with the New South Wales Education Department for the administration of education up to and including the secondary stage in the Territory, the expenditure involved being refunded annually to the State. There are seven schools in the Australian Capital Territory and two in the Jervis Bay Territory. The largest school is situated at Telopea Park, Barton, with accommodation for 1,200 scholars. Secondary education is provided at the Canberra High School, Acton, and the Telopea Park Central School has a secondary department. The High School has accommodation for 550 scholars, and its curriculum provides a standard of education comparable in range of subjects with that provided at the Government High Schools in New South Wales. The School also provides for commercial and junior technical classes, and there is an Evening Youth College attached, with commercial, matriculation and other classes.

The Canberra Technical College at Kingston is provided with modern equipment for supplementary courses for apprentices, journeymen desirous of improving their trade qualifications, and for others who desire to take any special courses. Provision is also made for the training of ex-service personnel under the Commonwealth Reconstruction Training Scheme.

The Canberra Nursery School, Acton, established in 1944, provides for the training of children between the ages of 3 and 5 years.

Eight neighbourhood pre-school centres provide modified nursery school facilities for children between the ages of 3 and 5 years. Additional centres of this type are to be established in other areas.

There are at present four private schools in the Territory. The Canberra Grammar School, the Canberra Church of England Girls' Grammar School, and St. Christopher's Convent School provide for sub-primary, primary and secondary education, and St. Patrick's School provides sub-primary and primary education.

Reference to the establishment of the Canberra University College will be found in Chapter VI.—Education.

An area of approximately 250 acres has been set aside at Acton—at the foot of Black Mountain—within easy distance of the City, for an Australian National University. Provision is made for the establishment of such research schools as may be deemed desirable, including a School of Medical Research, and Research Schools of Physical Sciences, Social Sciences and Pacific Studies. Further reference to this University appears in § 6 of Chapter VI.—Education.

11. **Finance.**—(i) *Year* 1949–50. Details of revenue and expenditure for the year 1949–50 are given in the following table :—

AUSTRALIAN CAPITAL TERRITORY : REVENUE AND EXPENDITURE, 1949–50.

(£.)

Revenue.	
Items.	Amount.
Taxation—	
Motor Registration	22,451
Liquor	10,127
Department of Health Licences	80
Medical, Dental, Pharmacy and Nursing Registrations	27
Stock Rates	825
Rates	12,948
Total	46,458
Business Undertakings—	
Railways	12,595
Electricity Supply	146,136
Water Supply and Sewerage	10,695
Abattoirs	14,842
Total	184,268
Rent—	
Housing	243,706
Land	49,714
Miscellaneous	10,008
Total	303,428
Interest	5,480
Fees for Services and Fines	9,135
Sale of Hotel Ainslie	85,000
Other	30,937
Grand Total	664,706

Expenditure.			
Items.	Capital Works.	Other Services. (a)	Total.
Public Debt Charges—			
Interest	..	192,860	192,860
Sinking Fund	..	74,052	74,052
Other	..	433	433
Total	..	267,345	267,345
Business Undertakings—			
Railways	645	18,689	19,334
Electricity Supply	134,796	174,963	309,759
Water Supply and Sewerage	175,854	41,881	217,735
Abattoirs	973	11,225	12,198
Transport Plant and Equipment	24,955	..	24,955
Transport Loss	..	26,285	26,285
Hostels Loss	..	62,620	62,620
Firewood Supplies Loss	..	1,000	1,000
Hostels	374,390	7,653	382,043
Total	711,613	344,316	1,055,929
Social Expenditure—			
Education—			
Primary and Secondary Education	..	94,453	94,453
Technical College	3,655	20,266	23,921
University	7,750	23,500	31,250
Science, Art, Research, etc.	..	3,646	3,646
Nursery Schools and Pre-School Centres	..	6,044	6,044
Public Health and Recreation	9,367	23,557	32,924
Charitable—			
Hospital—General	9,252	70,222	79,474
Relief of Aged, Indigent, etc.	..	1,492	1,492
Other	..	8,062	8,062
Law, Order and Public Safety—			
Justice	..	9,884	9,884
Police	..	35,955	35,955
Public Safety	13,155	7,282	20,437
Total	43,179	304,363	347,542
All Other—			
Roads and Bridges	81,062	73,999	155,061
Parks and Gardens, etc.	35,358	140,969	176,327
Public Works, n.e.i.	309,524	30,100	339,624
Lands and Surveys	14,750	19,718	34,468
Agriculture and Pasture	..	24,589	24,589
Forestry	30,396	35,695	66,091
Housing	1,200,272	53,266	1,253,538
Legislative and General Administration	..	242,816	242,816
Miscellaneous	..	2,011	2,011
Grand Total	2,426,154	1,539,187	3,965,341

(*a*) Includes Repairs and Maintenance.

(ii) *Years* 1945–46 *to* 1949–50. The following table is a summary of the main classes of revenue and expenditure during the years 1945–46 to 1949–50 :—

AUSTRALIAN CAPITAL TERRITORY : REVENUE AND EXPENDITURE.

(£.)

Items.	1945–46.	1946–47.	1947–48.	1948–49.	1949–50.
Revenue—					
Taxation	28,236	29,754	34,988	38,773	46,458
Business Undertakings (*a*)	114,437	122,218	149,526	170,854	184,268
Other	259,787	279,240	302,509	318,380	433,980
Total	402,460	431,212	487,023	528,007	664,706
Expenditure—					
Capital Works	349,103	779,050	1,076,029	1,843,570	2,426,154
Other Services—					
Public Debt Charges	280,074	280,642	283,427	283,975	267,345
Business Undertakings (*a*)	130,631	163,091	193,009	270,075	344,316
Social Expenditure	144,004	167,063	202,239	255,851	304,363
All Other	290,189	345,360	382,961	449,302	623,163
Total	1,194,001	1,735,206	2,137,665	3,102,773	3,965,341

(*a*) Includes Commonwealth Railways operating in the Australian Capital Territory.

(iii) *From* 1901–2 *to* 30*th June*, 1950. The total receipts and expenditure from 1901–2 to 30th June, 1950. were as follows :—

AUSTRALIAN CAPITAL TERRITORY : RECEIPTS AND EXPENDITURE TO 30th JUNE, 1950.

Receipts.	£	Expenditure.	£
Commonwealth Treasury—		Lands	918,831
Parliamentary Appropriations—		Engineering works	7,138,810
Revenue	16,948,005	Architectural works	8,568,483
Loan	5,741,514	Other capital expenditure, sundry debtors, etc.	1,731,157
			18,357,281
		Seat of Government Establishment Account, being maintenance and administration less revenue; expenditure of a capital nature for which assets no longer exist; profit and loss accounts of trading activities, etc.	(*a*) 4,332,238
Total Receipts	22,689,519	Net Expenditure	22,689,519

(*a*) Excludes interest £5,325,889 net.

The foregoing table was prepared by the Department of the Interior and excludes part cost of national buildings (Parliament House, the secretariats, etc.), federal highways within the Territory, the Queanbeyan-Canberra Railway, the housing loan etc., and loans for housing—£2,207,000.

NORFOLK ISLAND.

1. **Area, Location, etc.**—Norfolk Island, discovered by Captain Cook in 1774, is situated in latitude 29° 3′ 45″ South, longitude 167° 56′ 29″ East. Its total area is 8,528 acres, the island being about 5 miles long and 3 miles wide. From Sydney it is distant 930 miles, and from Auckland, 630 miles. The length of the coast line is 20 miles, and its form that of an irregular ellipse. Except for a portion on the south side, inaccessible cliffs rise from the water's edge. The climate is equable, the temperature ranging between 49° and 85° F. with a mean of 68° F. The average annual rainfall is 52 inches. It has been said that the salubrious climate, coupled with the beauty of its landscapes and seascapes, should render Norfolk Island " the Madeira of the Pacific ". Before the war

the island was visited annually by a number of tourists. With the inauguration of direct air services from Australia and New Zealand, this traffic is again rapidly increasing.

2. **Settlement.**—The first colonization, in 1788, was by Lieutenant King, who in H.M.S. *Supply* established a small penal station as a branch settlement of that at Port Jackson. The settlement was abandoned in 1813, and for 13 years thereafter its chief use was as a whaling station and place of call for British warships.

From 1826 to 1855 it was again made a penal station. In 1844 it was annexed to Van Diemen's Land (Tasmania).

The descendants of the *Bounty* mutineers, having become too numerous to subsist on Pitcairn Island, were removed thence to Norfolk Island in 1856. The new community numbering 94 males and 100 females were the descendants of British sailors and Tahitian women. The last of those transferred died at Norfolk Island on 1st March, 1943.

3. **Administration.**—In 1856 the island was created a distinct and separate settlement under the jurisdiction of New South Wales. In 1896 it was made a dependency under the Governor of that Colony, and finally by the passage of the Norfolk Island Act 1913 it was accepted by the Federal Parliament as a territory of Australia. From July, 1914 until 1st January, 1929, Norfolk Island was administered by the Department of Home and Territories, and then, until 25th June, 1941, by the Territories Branch of the Prime Minister's Department, but is now administered by the Department of Territories through an Administrator. An amending measure, the Norfolk Island Act 1935, provided for the establishment of an Advisory Council of eight elected members to advise the Administrator.

4. **Population.**—The population as disclosed by the Census of 30th June, 1947, was 938, consisting of 505 males and 433 females. During 1949–50, 22 births, 15 deaths and 12 marriages were recorded. The average age of the persons who died was 59 years. Departures from the island exceeded arrivals by 15, the respective figures being arrivals, 1,355, departures, 1,370. The population at 30th June, 1950 was 1,140.

5. **Live-stock.**—The latest returns of live-stock show that at 30th September, 1946, there were on the island 1,464 cattle, 527 horses, 327 sheep and 25 pigs. In addition, there were 5,369 head of poultry.

6. **Production, Trade, etc.**—The soil throughout is good and is specially suitable for the cultivation of bananas, citrus and other fruits. The Hawkesbury Wonder bean seed is one of the staple crops of the island. Since the promulgation of the Ordinance regulating the export of seed the area planted with bean seed has increased. Of the 1949–50 crop, 2,145 bushels were exported, the average price realized being approximately £3 15s. per bushel for uncertified seed, and £4 10s. per bushel for certified seed.

Apart from the bean, agriculture generally has been depressed. A modern pulping factory was erected on the island during 1938, but whilst 82 tons of passion fruit pulp were produced during 1939–40, no pulp was produced during 1949–50. During this year, passion fruit seed to the value of £139 was exported. The pulping of cherry guavas for jelly has also been experimented with and investigations carried out with a view to cultivating flax and ramie.

The citrus trees in full bearing on the island are capable of producing over 3,000 cases of fruit, but owing to a lack of marketing facilities, production has been retarded. Lemon and orange juice, have, however, sold readily, the combined value of these two items of export during 1946–47 amounting to £460. There were no exports during 1949–50 as barrels were not available. Lemon seed exported during the year 1949–50 was valued at £137.

Large numbers of whales pass the island throughout the season. However, whaling had not been conducted for a number of years until 1948, when the industry was revived by the formation of a whaling company. The preserved fish industry which was established some years ago has met with a number of setbacks but several consignments of frozen fish valued at £220 were exported to Australia during 1947-48.

On 30th June, 1950, the total area of land held under freehold and Crown leasehold amounted to 6,330 acres, consisting of 4,140 acres freehold and 2,190 leasehold.

Imports and exports for the six years 1938–39 and 1945–46 to 1949–50 are shown hereunder; the values are expressed in Australian currency :—

NORFOLK ISLAND : IMPORTS AND EXPORTS.

(£.)

Country.	1938–39.	1945–46.	1946–47.	1947–48.	1948–49.	1949–50.
			IMPORTS.			
From—						
Australia	27,427	29,938	50,195	69,902	117,772	107,229
New Zealand	..	2,273	22,368	5,303	13,260	26,770
Pacific Islands	163	191	1,476	375	198	401
Total	27,590	32,402	74,039	75,580	131,230	134,400
			EXPORTS.			
To—						
Australia	16,110	8,886	12,695	14,370	15,554	18,242
New Zealand	623	..	361	2,816	2,125	9,906
Pacific Islands	237	138	461	407	1,657	185
Total	16,970	9,024	13,517	17,593	19,336	28,333

Duties of Customs are levied on the following goods imported into Norfolk Island for home consumption :—

IMPORT DUTIES SCHEDULE.

Article.	Unit.	Rate of Duty.	
		s.	*d.*
Spirits	pr. gal.	30	0
Ale, beer, porter and cider	gal.	2	6
Wine, still—			
Australian	,,	5	0
Other	,,	10	0
Wine, sparkling—			
Australian	,,	15	0
Other	,,	25	0
Tobacco, manufactured or unmanufactured—			
Australian loaf	lb.	2	0
Other leaf	,,	4	0
Cigars and cigarettes	,,	6	0
Tea	,,	0	3
Coffee	,,	0	3

Article.	Unit.	Rate of Duty.	
		s.	*d.*
Chicory	lb.	0	3
Petroleum, etc.	gal.	0	3
Kerosene, etc.	,,	0	3
Residual oil, etc.	,,	0	3
Oil, n.e.i.	,,	0	3
Lubricating oils	,,	0	3
Sugar	cwt.	3	0
Molasses, etc.	,,	2	0
Biscuits	lb.	0	1
Candles	,,	0	1
Confectionery	,,	0	3
Dried fruits—			
Australian	,,	0	1
Other	,,	0	3
Jams, jellies and preserves	,,	0	1

No duties are chargeable on goods imported into Australia from Norfolk Island if the goods are (*a*) the produce or manufacture of Norfolk Island; (*b*) shipped direct to Australia; and (*c*) not goods which if manufactured or produced in Australia would be subject to excise duty.

7. **Communication.**—The "all-red" cable from Great Britain via Vancouver, Fanning Island and Fiji bifurcates at Norfolk Island, one line connecting with New Zealand, the other with Brisbane.

A shipping service to the Territory is maintained at approximately three-monthly intervals by vessels of Burns Philp & Co. Ltd., Sydney. The journey from Sydney to Norfolk Island occupies about four days.

The construction of an aerodrome on the island was completed during 1943. A fortnightly passenger and air freight service between Sydney and Norfolk Island is maintained by Qantas Empire Airways Ltd., and regular air services are also in operation from New Zealand and Fiji.

Until 10th June, 1947 the post office at Norfolk Island was part of the Commonwealth postal system, but as from that date Norfolk Island was established as a separate postal administration with its own issue of stamps.

8. **Social Condition.**—Education is free and compulsory up to the age of fifteen years. The school conforms to the Australian standard of public education, ranging from kindergarten to the intermediate certificate, with a two years' super-primary course of instruction in cultural subjects and in woodwork, needlework, leatherwork, basketry and hat-making. The headmaster and assistant teachers are lent by the New South Wales Education Department, but they are paid by the Norfolk Island Administration. The number of scholars enrolled at 30th June, 1950 was 193. During 1949–50, a dental examination of school children was carried out and free dental service provided.

The Court of Norfolk Island, presided over by a Chief Magistrate, is a court of record with dual jurisdiction. Sitting in its Limited Jurisdiction the Court has power to hear and determine actions of claims not exceeding £30 and to punish summarily all crimes and offences involving a pecuniary penalty or a sentence of imprisonment not exceeding six months. In its Full Jurisdiction the Court can hear and determine all actions, punish all crimes and offences, grant probate and letters of administration, hear and determine appeals from any conviction of the Court sitting in its Limited Jurisdiction, and has authority in all other matters. An appeal lies to the High Court of Australia from any judgment, order, decree or sentence of the Court sitting in its Full Jurisdiction.

9. **Finance.**—Details of revenue and expenditure for the years 1938–39 and 1945–46 to 1949–50 are shown in the following table :—

NORFOLK ISLAND : REVENUE AND EXPENDITURE.
(£.)

Items.	1938–39.	1945–46.	1946–47.	1947–48.	1948–49.	1949–50.
Revenue—						
Commonwealth Subsidy ..	4,000	4,000	4,000	4,000	4,000	4,000
Customs Duties	2,390	3,037	4,279	6,639	5,272	8,723
Sale of Liquor	2,865	8,508	7,758	10,616	13,197	15,446
Post Office(*a*)	..	..	17,690	31,696	3,892	3,025
Other	2,529	(*b*) 44,592	5,430	5,985	6,759	7,992
Total	11,784	60,137	39,157	58,936	33,120	39,186
Expenditure—						
Salaries	5,513	7,458	8,142	9,601	9,161	10,910
Purchase of Liquor ..	1,832	4,807	4,537	9,572	6,504	14,207
Post Office(*a*)	..	..	(*c*) 5,164	5,754	1,595	726
Other	6,220	(*b*) 45,736	8,781	15,285	25,015	20,029
Public Works						9,972
Total	13,565	58,001	26,624	40,212	42,275	55,844

(*a*) Excludes Money Order, Postal Note and C.O.D. Parcels transactions. (*b*) Includes compensation for land for aerodrome—receipts from Commonwealth, £38,500; payments to owners, £34,640. (*c*) Includes advance to postmaster, £4,091.

PAPUA AND NEW GUINEA.

Administration.

Following the outbreak of the Pacific War civil administration in Papua and New Guinea was suspended on 11th February, 1942, and military control commenced. The Territory of New Guinea came under Japanese occupation in 1942, but the greater part had already been recaptured by Australian and Allied Forces when the Japanese surrendered in August, 1945. During the period of military control matters relating to the former civil administration were dealt with by the Department of External Territories, Canberra. The Minister for External Territories was empowered by National Security Regulations to exercise the powers and functions of the Administrator, officers, and authorities of the territories, and jurisdiction of the Supreme Courts of Papua and New Guinea was vested in the Supreme Court of the Australian Capital Territory.

Pursuant to the provisions of the Papua-New Guinea Provisional Administration Act 1945, a single Provisional Administration Service was formed to take over from the military authorities in the Territories of Papua and New Guinea. Colonel J. K. Murray was appointed Administrator of the combined Territories on 11th October, 1945, and the transfer from military to civil control in Papua and the portion of the Territory of New Guinea south of the Markham River was effected on 30th October, 1945. Jurisdiction of the Supreme Courts of Papua and New Guinea was then vested in the Supreme Court of the Territory of Papua-New Guinea. As circumstances permitted, civil control was extended to other areas until the whole of the Territory of New Guinea came under control of the Provisional Administration of Papua-New Guinea on 24th June, 1946.

The Papua-New Guinea Provisional Administration Act 1945–1946 was repealed by the Papua and New Guinea Act 1949 which came into force on 1st July, 1949. The latter Act approved the placing of the Territory of New Guinea under the International Trusteeship system and provides for an Administrative Union, one Administrator, one Supreme Court and one Public Service.

Provision is made for an Executive Council of not less than nine officers of the Territory, who shall be appointed by the Governor-General, and a Legislative Council consisting of twenty-nine members, namely :—(*a*) the Administrator ; (*b*) sixteen officers of the Territory (who shall be known as official members) ; (*c*) three non-official members possessing such qualifications as are provided by Ordinance and elected, as provided by Ordinance, by electors of the Territory ; (*d*) three non-official members representing the interests of the Christian missions in the Territory ; (*e*) three non-official native members; and (*f*) three other non-official members.

The Legislative Council shall commence to perform its powers and functions under the Act on a date to be fixed by Proclamation.

Subject to the Act, provision may be made by Ordinance for the establishment of Advisory Councils for Native Matters and Native Village Councils.

The Act also makes provision for the continuance of the existing laws of the Territory of Papua and the Territory of New Guinea.

PAPUA.

§ 1. General Description.

1. **Early Administration.**—Particulars of the early administration of Papua are given in Official Year Book No. 19, p. 576.

2. **Administration by Commonwealth of Australia.**—The Territory was placed under the authority of the Commonwealth on 1st September, 1906, by proclamation issued in pursuance of Letters Patent of 18th March, 1902, and was accepted by the Commonwealth by the Papua Act 1905, which came into force by virtue of the aforesaid proclamation. The transfer was made under the authority of Section 122 of the Constitution. The Territory is now under the control of the Commonwealth, but not included within it, and is divided into seven magisterial divisions, viz. :—Central Highlands, Western, Delta, Gulf, Central, Milne Bay and Northern.

3. **Area, etc.**—Papua lies wholly within the tropics. The northernmost point touches 5° S. latitude; its southernmost portion, comprising Sudest and Rossel Islands, lies between 11° S. and 12° S. latitude. It is separated from Australia by Torres Strait. The length of Papua from east to west is upwards of 920 miles; towards either end the breadth from north to south is about 200 miles, but about the centre it is considerably narrower. The Territory comprises also the islands of the Trobriand, Woodlark, D'Entrecasteaux and Louisiade groups. The length of coast-line is estimated at 3,664 miles—1,728 on the mainland, and 1,936 on the islands. The total area is about 90,540 square miles, of which 87,786 are on the mainland, and 2,754 on the islands. A reference to the physical characteristics of the Territory appears in previous issues of the Official Year Book (*see* No. 18, p. 633).

§ 2. Population.

1. **Non-indigenous Population.**—(i) *General.* The number of the non-indigenous population enumerated at the Census of 30th June, 1947, was 3,239, of whom 2,057 were males and 1,182 females. There were 2,736 full-bloods, of whom 2,542 were Europeans and 194 non-Europeans; half-castes with one of the parents a European numbered 503.

The table following shows the non-indigenous population enumerated at the last three censuses and as estimated at 30th June, 1950:—

TERRITORY OF PAPUA: NON-INDIGENOUS POPULATION.

Race.	4th April, 1921.	30th June, 1933.	30th June, 1947.	30th June, 1950.
Full-blood—				
European	1,343	1,148	2,542	4,380
Non-European—				
Filipino	91	88	21	(b)
Malay	63	158	24	
Polynesian	372	488	96	
Other	51	52	53	
Total	577	786	194	
Half-caste (*a*)	158	227	503	
Not Stated	..	12	..	
Grand Total	2,078	2,173	3,239	

(*a*) Persons who have European blood to the extent of one-half. (*b*) Not available.

An Immigration Restriction Ordinance prohibits the immigration of persons who fail to pass the dictation test, or who are of bad character, or likely to become a charge upon the public. Exemptions may, however, be granted by the Administrator to persons of special skill required for employment as overseers or foremen.

(ii) *European Population.* The European population of Papua at the Census of 30th June, 1947, was 2,542, made up of 1,700 males and 842 females. The numbers recorded in earlier years were:—1937, 1,323; 1938, 1,488; 1939, 1,608; 1940, 1,822; and 1941, 3,070. At 30th June, 1950, the European population was estimated at 4,380.

(iii) *Non-European Population.* The non-European section of the non-indigenous population at 30th June, 1947 was 697 of whom 194 were full-bloods and 503 were half-castes with one of the parents a European.

2. **Native Population.**—It is not possible to give exact data regarding the number of natives, because part of the interior has not as yet been under complete Government control. A census of areas under Government control is at present being conducted, and the number of natives enumerated by 30th June, 1950 and the estimated number of uncounted natives are shown in the following table.

TERRITORY OF PAPUA : ENUMERATED AND ESTIMATED NATIVE POPULATION AS AT 30th JUNE, 1950.

Division.	Enumerated.(*a*)			Estimated.	Grand Total.
	Males.	Females.	Persons.		
Central Highlands ..	1,423	1,155	2,578	80,000	82,578
Western	9,076	7,753	16,829	9,000	25,829
Delta	7,349	6,555	13,904	8,900	22,804
Gulf	11,451	10,408	21,859	(*b*) 5,500	27,359
Central	28,680	25,300	53,980	27,530	81,510
Milne Bay	38,448	34,339	72,787	13,700	86,487
Northern	21,028	18,964	39,992	2,000	41,992
Total	117,455	104,474	221,929	146,630	368,559

(*a*) These figures are based on the results of the census up to 30th June, 1950. The census was then still proceeding. (*b*) No estimate given for grassland Kukukuku country.

§ 3. Native Labour, Taxation, Health, etc.

1. **Native Labour.**—The laws relating to the employment of natives are uniform in Papua and New Guinea and are contained in the Native Labour Ordinance 1950 of the Territory of Papua and New Guinea.

The Ordinance provides for the engagement of natives under a permit issued by a District Officer authorizing the permittee to engage natives for employment on his own behalf or with the written authority of a registered employer on his behalf. Provision is also made for the the issue to natives of Native Assistant's permits authorizing the permittee to engage employees on behalf of the employer endorsed on the permit. Such permits are limited to the district specified in the permit.

Natives are employed under written agreements which are sanctioned and attested by an authorized officer for any period not exceeding eighteen months and may be extended by the parties thereto for a further period of six months but not beyond that period. Employment during the period of extension may be terminated by either party by one month's notice to the other. An agreement commences to run as from the time it is attested. Civil remedies only apply to breaches of agreements. Employers must repatriate workers on the termination of their contracts.

Natives under sixteen years of age may not be employed and a minimum monthly wage of fifteen shillings and a working week of 44 hours are prescribed. An employer must supply his labourers with housing, medical attention, food and clothing free of charge. Provision also exists for compensation for injury or death arising out of employment.

2. **Native Taxes.**—Under the Native Taxes Ordinance 1917–1936, a tax not exceeding £1 per annum may be imposed on natives, except native constables, mission teachers and mission students, natives unfit for work, and those who have four living children. The proceeds of the tax must be expended on native education, or devoted to purposes directly benefiting the natives, but no taxes have been collected since 1941.

3. **Health.**—At 30th June, 1950, there were three European hospitals (one privately controlled), 32 native hospitals (one private and 14 mission), 144 aid-posts (65 mission), 39 welfare clinics (35 mission) and two leprosaria functioning in the Territory. Hospitals are also conducted by some of the plantation companies. The mission societies employ a number of doctors and trained nurses. European medical assistants are employed by the Government. A training school has been established for the purpose of training natives in first-aid, elementary physics, chemistry, anatomy, physiology and pathology in preparation for their employment as native medical assistants. Native students also attend the Native Medical Practitioners' School at Fiji. The chief complaints treated are malaria, yaws, ulcers, lung affections, hookworm, venereal and skin diseases.

§ 4. Land Tenure.

1. **Ownership of Land.**—The basic principle of the land laws of Papua is that all land not specifically alienated by due process from the natives is native land. On 30th June, 1950, of the total estimated area of Papua, approximately 58,000,000 acres, only 1,828,684 acres had been alienated. The following table shows the distribution of all land in Papua according to tenure.

TERRITORY OF PAPUA : LAND TENURE, 30th JUNE, 1950.

Tenure.	Area.
Alienated—	Acres.
Held by private non-indigenous inhabitants—	
Freehold	24,285
Leasehold	222,680
Held by indigenous inhabitant under leasehold	607
Held by Administration	1,520,205
Native Reserves(a)	60,907
Total	1,828,684
Held by Natives	56,171,316
Total Area of Papua	58,000,000

(a) Vested in Director of District Services and Native Affairs as Trustee for Natives.

2. **Types of Tenure Possible.**—Although, as the figures above show, a small amount of freehold land exists in Papua, no further estates in fee-simple or other estate in freehold can be granted under the provisions of the Land Ordinance 1911–1947 of Papua. Leases of various kinds may be granted by the Administration. The principal types of lease available are agricultural leases, pastoral leases, leases of town allotments, business leases and residence leases of other than town allotments, and various forms of special leases and licences over land. Leasehold terms are liberal and, in general, leases may be granted

for periods of up to 99 years. Rent is based on the unimproved value of the land. For agricultural leases the rental rate per annum is 5 per cent. of the unimproved value and for pastoral leases the rate is 2½ per cent. Concessions regarding freedom from, or reduced, rents apply during the early developmental periods of agricultural and pastoral leases. All leases are subject to improvement conditions which may be varied or relaxed under certain circumstances. The following table shows particulars of leases in force in Papua on 30th June, 1950.

TERRITORY OF PAPUA : LEASES IN FORCE, 30th JUNE, 1950.

Class of Lease.	No. of Leases.	Area.
		Acres.
Agricultural	581	202,738
Pastoral	24	18,870
Residence	137	163
Special	105	588
Mission	280	717
Business	57	108
Town Allotment	292	103
Total	1,476	223,287

3. **Methods of Obtaining Land.**—Leases of Crown land may be obtained from the Administration. Dealings in privately-owned land are a matter for private treaty. Native-owned land, however, cannot be acquired or leased from the native owners by private individuals. If a lease of land which is native-owned is desired, application must be made to the Administration. If satisfied that the land over which the lease is applied for is not required or likely to be required by the native owners, and if otherwise satisfied that the lease should be granted, the Administration itself purchases the land and grants an appropriate form of lease to the applicant.

4. **Registration of Land.**—The registration of titles, interests and dealings in land is provided for under the Real Property Ordinance 1913–1939 modelled on the Torrens system of land registration.

§ 5. Production.

1. **General.**—The products of the Territory are obtained from its agricultural, fishing and mining industries. The only manufacturing industry of importance is that of desiccated coco-nut. Native subsistence agriculture, fishing and hunting produce most of the food requirements of the native population. The main native agricultural products are taro, yams, sweet potatoes, bananas and paw paw. Non-indigenous enterprise produces most of the commodities exported. Natives, however, do produce copra for export and native enterprise in other fields of agricultural production for export purposes is being encouraged. The principal agricultural products of Papua for the export trade are copra and rubber. Most of the timber milled during 1949–50 was absorbed by local building requirements ; exports of timber were only about one per cent. of total production. The main products of fisheries exported from Papua are trochus and green snail shell. Gold is the principal mineral mined.

2. **Agriculture.**—(i) *Soil and Rainfall.* Rich soil at varying elevations and heavy and evenly distributed rainfall favour the cultivation of a wide variety of tropical products. There are large areas of rich alluvial and volcanic soils along the coast and fertile land is

found at elevations up to 6,000 feet. Experiments in rice growing are being carried out in the Mekeo district west of Port Moresby. The aim of these experiments is to promote rice production to a level in both Papua and New Guinea which could supply local requirements of this commodity, which is an important item of diet for the natives, particularly native labourers.

(ii) *Plantations.* Agricultural settlement has been mostly in the Central and Eastern Divisions, with coco-nuts and rubber as the principal crops. The Territory, however, is capable of growing a number of other crops, including jute and jute substitutes, manila hemp, sisal, cocoa, tea, coffee, rice, pepper, tobacco, peanuts, kapok, cassava, ginger, cinchona, nutmeg, vanilla, tropical fruits and vegetables, sago and tung oil. Development of these crops is being encouraged. Some plantings of cocoa have taken place in Papua since the 1939–45 War but these are not yet in bearing. Pre-war coffee plantations, which were not extensive, have been rejuvenated and high quality coffee beans have been produced. There has been little new planting of coffee.

(iii) *Government Plantations.* There are five Government plantations, the Orangerie Bay and Kikori coco-nut plantations and the Gobaregere, Cupola and Kokoda rubber plantations.

(iv) *United Kingdom Copra Contract.* A contract with the United Kingdom, which commenced on 1st March, 1949, for a period of nine years was entered into with a view to stabilizing the copra industry of Papua and New Guinea. The price of copra sold to the United Kingdom under the contract for the first contract year, 1949, was Stg. £48 per ton f.o.b. Territory ports, and it was provided that the price for each subsequent year would not be more than 10 per cent. higher or lower than the preceding years and would be negotiated before the end of the preceding year. The price for the third contract year (1st March, 1951–29th February, 1952) is Stg. £53 15s. per ton f.o.b. Territory ports.

3. **Forestry.**—The principal softwood timber is known as "ilimo," while among satisfactory timbers of the lowlands are "nara," "medobi," and "melila." There are large numbers of woods, varying from the softest to the hardest, including beautiful cabinet woods, but research is necessary to determine their usefulness. The development of a coniferous belt at the higher altitudes offers great possibilities. It is believed that teak and sandalwood are well suited for cultivation.

4. **Live-stock.**—At 31st December, 1940, the live-stock in the Territory consisted of 587 horses, 5,994 head of cattle, 87 mules, 1,244 goats, 665 pigs, 30 sheep and 6,320 fowls. The introduction of rabbits, foxes, hares and monkeys is prohibited. Post-war live-stock statistics are not available, but at 30th June, 1948, it was estimated that there were 312 horses, 2,100 head of cattle, 45 mules, 1,200 goats, 560 pigs and 4,500 fowls in the Territory. These figures exclude native-owned live-stock.

5. **Mining.**—(i) *Variety of Minerals.* Minerals have been found over a wide range of country. Those discovered so far are gold, copper, tin, lead, zinc, cinnabar, iron, osmiridium, gypsum, manganese, sulphur, graphite, chromite, lignite, platinum and petroleum.

The existence of petroleum has been traced at scattered intervals over a large area. Three companies hold permits under the provisions of the Petroleum (Prospecting and Mining) Ordinance 1938–1947 and oil prospecting has been carried on in the Western, Delta, Gulf and Central Divisions.

Of precious stones, only the topaz and beryl have been obtained. Large beds of apparently good coal also exist.

(ii) *Gold.* Gold was discovered in 1888 and the search gradually spread over every division, finds being reported wherever the explorers went. The estimated quantity in fine ounces and the value of the gold yield for the years 1940–41 and 1946–47 to 1949–50 are shown below :—

TERRITORY OF PAPUA : GOLD YIELD.(*a*)

1940–41.		1946–47.		1947–48.		1948–49.		1949–50.	
Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
Fine oz.	£	Fine oz.	£	Fine oz.	£	Fine oz.	£	Fine oz.	£
14,056	133,341	379	4,077	214	2,299	25	264	788	10,875

(*a*) Valued at average price realized for fine gold in Australia.

The total value of gold won to 30th June, 1950 was £3,286,657.

(iii) *Other Minerals.* Some good samples of galena (sulphide of lead) have been obtained, while cinnabar (sulphide of mercury), graphite (or plumbago), zinc-blende, native sulphur, and other minerals are known to exist. In 1924 a deposit of lignite was discovered on Smoky Creek, a tributary of the Era River. Copper matte to the value of £5,999 was exported during 1940–41. The principal value of this item is its gold content.

6. **Water Power.**—Most of the rivers in Papua carry a large volume of water from a great height over a relatively short distance, thereby offering opportunities for the installation of hydro-electric power plants. It is estimated that there is at least 10,000,000 h.p. available for this purpose.

§ 6. Trade and Shipping.

1. **Customs Tariff.**—As from 1st July, 1950, a new customs tariff came into force. This provides high revenue rates on ale, spirits, wines, timepieces, cigarette papers, fancy goods, jewellery and certain apparel and piece goods made of silk. Of 72 items mentioned in the import schedule, 55 are on the free list. The new tariff allows duty-free treatment of necessities, but increases rates on non-necessities. The purpose of the revision is to relieve both general industrial costs and the basic costs of living with a view to encouraging further development of the Territory. The rate of duty on items not specified in the schedule is 10 per cent. ad valorem. No preferential rates are specified in the schedule.

On 16th July, 1931, a primage duty of 4 per cent. ad valorem was imposed on all goods, whether dutiable or not, in addition to the ordinary customs dues ; the rate was subsequently reduced to 2½ per cent. and the duty ceased to operate on 1st July, 1937. From 12th July, 1940, the duty has been re-imposed, but certain specified articles have been exempted. The value of imports into Papua during 1949–50 was £4,684,028, and the duty collected, £240,547. In 1949–50 £23,234 was received in export duties.

Provision is made in the Australian Customs Tariff (Papua and New Guinea Preference) 1936 for the free entry into Australia of certain goods produced and imported direct from Papua (*see* Chapter XII.—Trade), and a proclamation of 25th September, 1935 exempted from primage duty goods produced or manufactured in the Territory.

2. **Imports and Exports.**—Tables of imports and exports during the years 1938–39 and 1946–47 to 1949–50 are shown below. The values of exports are expressed in Australian currency, but it is not possible to determine accurately the currency of the £ in the table of imports.

TERRITORY OF PAPUA : IMPORTS AND EXPORTS.

(£.)

Particulars.	1938–39.	1946–47.	1947–48.	1948–49.	1949–50.
IMPORTS.					
Ale, spirits and beverages	14,818	34,669	42,792	74,823	101,844
Tobacco and manufactures ..	27,466	63,457	73,645	80,126	214,427
Agricultural products and groceries	138,551	396,900	569,794	715,102	1,134,129
Textiles, felts, furs, attire, etc. ..	37,712	88,472	151,894	192,758	267,500
Metals and machinery	76,068	179,148	431,005	472,927	1,605,347
Oils, paints and varnishes ..	33,331	71,751	352,299	422,395	358,247
Earthenware, cement, glass, etc.	5,585	14,549	22,506	39,227	57,509
Drugs and chemicals	12,828	19,322	25,729	27,224	47,902
Wood, wicker and cane ..	13,076	18,003	17,769	28,713	115,157
Jewellery and fancy goods ..	7,756	55,640	36,525	63,389	39,047
Leather and rubber	8,076	12,704	20,022	29,469	87,026
Paper and stationery	8,521	15,600	25,691	29,084	53,866
Miscellaneous	94,273	497,554	623,826	1,002,048	602,027
Government stores	36,747				
Total	514,808	1,467,769	2,393,497	3,177,285	4,684,028
EXPORTS.					
Bêche-de-mer	2,506	..	..	200	..
Coco-nut, desiccated	48,140	..	..	27,255	58,321
Coffee beans	6,911	1,288	275	85	1,304
Copra	57,999	136,764	316,739	441,813	574,511
Gold	152,103	4,077	2,299	264	10,875
Pearls	15	..	2,000	..	..
Rubber	114,949	156,232	152,042	145,968	361,339
Trochus shell	9,200	9,527	8,783	5,252	4,750
Other	98,335	39,126	341,753	313,275	191,594
Total	490,158	347,014	823,891	934,112	1,202,694

Pre-war, the trade of the Territory reached its maximum in 1939–40, when imports were valued at £826,412 and exports at £510,672. Since the war, the increase in value of imports has been due to a greater volume of goods and an increase in the prices of practically all commodities. The increase in exports has been due mainly to copra, the exports of which for 1949–50 exceeded those for 1948–49 by approximately 1,333 tons in quantity and £132,698 in value, and to surplus war stores exported by purchasers.

3. **Direction of Trade.**—Particulars of the countries of origin of the imports into Papua and of destination of the goods shipped therefrom are shown below for the years 1938–39, 1948–49 and 1949–50.

TERRITORY OF PAPUA : DIRECTION OF TRADE.

(£.)

Country.	Imports.			Exports.		
	1938–39.	1948–49.	1949–50.	1938–39.	1948–49.	1949–50.
Australia	239,105	2,139,907	2,509,912	409,408	896,533	1,183,684
United Kingdom ..	56,699	312,298	442,877	25,840	..	..
Other British Countries	45,313	15,095	69,654	17,630	29,083	18,605
Europe	23,966	..	..	11,024	2,000	405
Japan	14,858	..	..	7,582	..	..
Asia, excluding Japan	38,960	80,014	76,348	2,425	..	..
Indonesia	21,288	98,476	..	11,519	..	..
U.S. of America ..	73,446	287,235	1,225,963	576	..	..
Other ..	1,173	*a* 244,260	*a*359,274	4,154	6,496	..
Total ..	514,808	3,177,285	4,684,028	490,158	934,112	1,202,694

(*a*) Part of these imports may originate from Other British Countries, Europe, or Asia, excluding Japan.

4. **Shipping.**—The following table shows the number of entrances and clearances combined, and the corresponding net tonnage for overseas vessels at ports during the years 1938–39, 1940–41 and 1947–48 to 1949–50 :—

TERRITORY OF PAPUA : OVERSEA SHIPPING.

Year.	Number.	Net Tons.
1938–39	215	461,199
1940–41	217	489,469
1947–48	178	253,621
1948–49	218	398,618
1949–50	236	498,107

NOTE.—The figures above exclude ships of war and Government vessels.

Of the 1949–50 totals, British vessels constituted 216 with an aggregate net tonnage of 443,719. Total entrances in 1949–50 numbered 121 (250,052 net tons), and total clearances were 115 (248,055 net tons).

§ 7. Finance.

The revenue and expenditure of Papua for the years 1938–39, 1940–41 and 1947–48 to 1949–50 were as follows :—

TERRITORY OF PAPUA : REVENUE AND EXPENDITURE.

(£.)

Particulars.	1938–39.	1940–41.	1947–48.	1948–49.	1949–50.
Revenue—					
Customs	54,606	77,359	221,661	275,123	324,190
Commonwealth Grant ..	42,500	42,500	757,449	1,607,828	1,903,313
Lands	6,013	7,700	11,117	10,403	14,489
Fees, fines, etc. ..	9,501	10,050	9,605	10,606	11,391
Other	53,203	51,909	81,797	87,934	108,374
Total	165,823	189,518	1,081,629	1,991,894	2,361,757
Expenditure—					
Medical	22,075	24,718	102,316	160,078	425,381
Ordinary Votes ..	116,275	132,633	366,408	519,451	767,537
Public Works	25,458	29,886	320,352	501,888	796,607
Native Affairs	2,522	1,763	241,047	236,657	335,678
Total	166,330	189,000	1,030,123	1,418,074	2,325,203

The table above and that on page 369 show separate particulars of the respective territories. When civil administration was resumed on 30th October, 1945, both territories were combined under one provisional administration. The Papua and New Guinea Act 1949, which came into force on 1st July, 1949, approved the placing of the Territory of New Guinea under the International Trusteeship system and provided for an Administrative Union, one Administrator, one Supreme Court and one Public Service. In order to provide a comparison with 1938–39, combined particulars are shown below for the years 1938–39 and 1945–46 to 1949–50.

TERRITORY OF PAPUA AND NEW GUINEA: REVENUE AND EXPENDITURE.

(£.)

Particulars.	1938–39.	1945–46.	1946–47.	1947–48.	1948–49.	1949–50.
REVENUE.						
Taxation—						
Customs Duties	257,460	48,775	303,995	530,170	806,798	915,036
Stamp Duties	7,061	261	11,039	6,048	20,691	8,211
Licences	15,185	741	6,000	11,353	16,380	17,574
Other Taxes	45,831	..	..	..	..	..
Commonwealth Grants	42,500	252,740	2,018,673	1,866,942	3,196,668	4,184,454
Post Office	40,548	6,618	27,970	41,127	51,896	52,707
Lands	24,429	97	5,364	16,894	19,175	25,738
Forestry	(a)	10	10,684	43,193	46,480	34,849
Agriculture	11,381	4	3,929	37,045	25,752	31,738
Mining—						
Royalty on Gold	b 107,975	..	9,451	35,581	49,053	58,636
Other	18,682	540	1,669	14,218	10,867	12,248
Harbour Dues, Wharfage, etc. ..	16,930	1,758	11,773	110,109	107,494	128,819
Fees, Fines and Forfeitures, n.e.i. ..	11,122	1,958	10,861	17,972	22,965	29,799
Electric Light and Power Supply ..	6,094	..	1,303	10,768	18,455	30,837
Other Revenue	36,969	4,660	59,968	39,412	37,265	54,328
Total	642,167	318,162	2,482,679	2,780,832	4,429,939	5,584,974
EXPENDITURE.						
Post Office	8,875	10,986	46,687	78,867	105,558	151,733
Social Expenditure—						
Education	12,904	3,090	36,695	103,008	147,238	395,903
Public Health Services, Hospitals, etc.	113,571	32,905	174,794	303,699	564,025	908,495
Law, Order and Public Safety ..	92,797	23,562	112,672	164,440	232,898	315,543
Grants to Missions for Education and Medical Services	14,238	8,476	16,227	22,366	41,713	46,021
District Services and Native Affairs ..	128,398	87,063	435,723	583,068	733,553	788,174
Wages due to Natives under Pre-war Contracts	..	3,340	77,105	13,970	2,633	95
Compensation to Natives for war injuries and war damage ..	..	10,322	189,580	289,032	368,486	272,567
New Works, Buildings, etc... ..	b 69,146	21,672	87,219	242,974	628,879	919,933
Other Public Works and Services ..	57,422	37,976	260,800	414,478	488,127	745,199
Electric Light and Power	2,837	450	6,732	52,235	76,523	116,802
Legislative, General Administration and Other Expenditure	179,514	60,582	c 859,137	418,914	621,745	887,955
Total	679,702	300,424	2,303,371	2,687,051	4,011,378	5,548,420

(a) Included with Lands. (b) Trust Territory of New Guinea only. (c) Includes purchases from Commonwealth Disposals Commission, £659,541.

TRUST TERRITORY OF NEW GUINEA.

§ 1. General Description.

The land area of the Territory of New Guinea is about 93,000 square miles and the area including the sea within the lines drawn through its extreme outer points is more than 1,000,000 square miles. As the coast of the Territory has not been completely surveyed, the areas of the various islands are known only approximately.

The approximate areas of the principal islands together with the small islands adjacent thereto are as follows :—

AREA OF TERRITORY OF NEW GUINEA.
(Sq. Miles.)

Particulars.		Approximate Area.
North-East New Guinea (also called " The Mainland ") ..		69,700
Bismarck Archipelago—		
New Britain	14,600	
New Ireland	3,340	
Lavongai	460	
Admiralty Islands	800	19,200
Solomon Islands—		
Bougainville	3,880	
Buka	220	4,100
Total		93,000

Information regarding physiography and climate will be found in Official Year Book No. 22, p. 613, and in the *Official Handbook of the Territory.*

§ 2. Government.

1. **The Military Occupation (1914–18 War).**—On 17th September, 1914, the Acting Governor of German New Guinea signed terms of capitulation with the officer commanding a Naval and Military Expedition sent from Australia, and thereafter the Territory was under military administration until the establishment of Civil Government on 9th May, 1921.

2. **Mandate (1920).**—In 1919 it was decided by the Principal Allied and Associated Powers that the Territory of New Guinea, which Germany gave up as one of the terms of peace, should be entrusted under Mandate from the League of Nations to the Government of the Commonwealth. The issuing of the Mandate was, however, delayed, and it was not until 17th December, 1920 that its terms were settled, and the Mandate itself did not reach Australia until April, 1921.

The terms of the Mandate are given in Official Year Book No. 33 (*see* p. 264).

3. **1939–45 War.**—For the events following the outbreak of the Pacific War and the formation of the Papua-New Guinea Provisional Administration in 1945, *see* p. 345 *ante.*

4. **Trusteeship (1946).**—The Commonwealth Government undertook to place the Territory of New Guinea under the Trusteeship System established under the Charter of the United Nations. The Trusteeship Agreement for the Territory, under which the Government of Australia is the sole administering authority, was approved by the General Assembly of the United Nations Organization on 13th December, 1946. The terms of the Agreement are as follows :—

> *Preamble* : The Territory of New Guinea has been administered in accordance with Article 22 of the Covenant of the League of Nations and in pursuance of a Mandate conferred upon His Britannic Majesty and exercised on his behalf by the Government of the Commonwealth of Australia.
>
> The Charter of the United Nations, signed at San Francisco on 26th June, 1945, provides by Article 75 for the establishment of an international trusteeship system for the administration and supervision of such territories as may be placed thereunder by subsequent individual agreements.
>
> The Government of Australia now undertakes to place the Territory of New Guinea under the trusteeship system, on the terms set forth in the present Trusteeship Agreement.

Therefore, the General Assembly of the United Nations, acting in pursuance of Article 85 of the Charter, approves the following terms of trusteeship for the Territory of New Guinea in substitution for the terms of the Mandate under which the Territory has been administered :—

Article 1. The Territory to which this trusteeship agreement applies (hereinafter called the Territory) consists of that portion of the island of New Guinea and the groups of islands administered therewith under the Mandate dated 17th December, 1920, conferred upon His Britannic Majesty and exercised by the Government of Australia.

Article 2. The Government of Australia (hereinafter called the Administering Authority) is hereby designated as the sole authority which will exercise the administration of the Territory.

Article 3. The Administering Authority undertakes to administer the Territory in accordance with the provisions of the Charter and in such a manner as to achieve in the Territory the basic objectives of the international trusteeship system, which are set forth in Article 76 of the Charter.

Article 4. The Administering Authority will be responsible for the peace, order, good government and defence of the Territory and for this purpose will have the same powers of legislation, administration and jurisdiction in and over the Territory as if it were an integral part of Australia, and will be entitled to apply to the Territory, subject to such modifications as it deems desirable, such laws of the Commonwealth of Australia as it deems appropriate to the needs and conditions of the Territory.

Article 5. It is agreed that the Administering Authority, in the exercise of its powers under Article 4, will be at liberty to bring the Territory into a customs, fiscal or administrative union or federation with other dependent territories under its jurisdiction or control, and to establish common services between the Territory and any or all of these territories, if (in its opinion) it would be in the interests of the Territory and not inconsistent with the basic objectives of the trusteeship system to do so.

Article 6. The Administering Authority further undertakes to apply in the Territory the provisions of such international agreements and such recommendations of the specialized agencies referred to in Article 57 of the Charter as are, in the opinion of the Administering Authority, suited to the needs and conditions of the Territory and conducive to the achievement of the basic objectives of the trusteeship system.

Article 7. The Administering Authority may take all measures in the Territory which it considers desirable to provide for the defence of the Territory and for the maintenance of international peace and security.

Article 8. The Administering Authority undertakes that in the discharge of its obligations under Article 3 of this agreement—

1. It will co-operate with the Trusteeship Council in the discharge of all the Council's functions under Articles 87 and 88 of the Charter.
2. It will, in accordance with its established policy—
   - (*a*) take into consideration the customs and usages of the inhabitants of New Guinea and respect the rights and safeguard the interests both present and future of the indigenous inhabitants of the Territory and, in particular, ensure that no rights over native land in favour of any person not an indigenous inhabitant of New Guinea may be created or transferred except with the consent of the competent public authority ;
   - (*b*) promote, as may be appropriate to the circumstances of the Territory, the educational and cultural advancement of the inhabitants ;
   - (*c*) assure to the inhabitants of the Territory, as may be appropriate to the particular circumstances of the Territory and its peoples, a progressively increasing share in the administrative and other services of the Territory ;

(*d*) guarantee to the inhabitants of the Territory, subject only to the requirements of public order, freedom of speech, of the press, of assembly, of petition, freedom of conscience and worship and freedom of religious teaching.

5. **Administration.**—For particulars of the administration of the Territory of New Guinea prior to the setting-up of the Papua and New Guinea Administration *see* Official Year Book No. 36 and earlier issues.

For administrative purposes the Territory is divided into the following districts :—New Britain, comprising New Britain and adjacent islands ; Morobe, Madang, Central Highlands, and Sepik on the mainland ; New Ireland, comprising New Ireland, Lavongai and adjacent islands ; Manus, comprising the Admiralty Group ; and Kieta, the former German portion of the Solomon Islands. Each district is under a District Officer, assisted by a small staff.

§ 3. Population.

1. **Non-indigenous Population.**—(i) *General.* The number of the non-indigenous population enumerated at the Census of 30th June, 1947, was 6,200, of whom 4,369 were males and 1,831 were females. There were 5,627 full-bloods, of whom 3,412 were Europeans and 2,215 non-Europeans. Half-castes with one of the parents a European numbered 573.

At the 30th June, 1950 the non-indigenous population was estimated at 8,680.

The following table shows the non-indigenous population enumerated at the last three censuses and as estimated at 30th June, 1950 :—

TERRITORY OF NEW GUINEA : NON-INDIGENOUS POPULATION.

Race.	4th April, 1921.	30th June, 1933.	30th June, 1947.	30th June, 1950.
Full-blood—				
European	1,288	3,191	3,412	(*b*)
Non-European—				
Chinese	1,424	1,449	1,769	
Other..	392	381	446	
Total	1,816	1,830	2,215	
Half-caste (*a*)	69	195	573	
Grand Total	3,173	5,216	6,200	8,680

(*a*) Persons who have European blood to the extent of one-half. (*b*) Not available.

(ii) *European Population.* The number of the European population for various years since 1885 is shown in the following table. At 30th June, 1947 the European population was 3,412, of whom 2,604 were males and 808 females.

TERRITORY OF NEW GUINEA : EUROPEAN POPULATION.

Year.	Number.	Year.	Number.
1885	64	1939	4,608
1933	3,191	1940	4,399
1937	4,286	1941	4,101
1938	4,445	1947	3,412

(iii) *Asiatic Population.* Malays seem to have been the first Asiatics brought by the Germans to German New Guinea ; 37 of them were recorded on the mainland in 1885. About 1889 the New Guinea Company began to bring Chinese, Malays and Javanese in growing numbers from Singapore and Java to work on the plantations ; in the year 1892 there were about 1,800 Asiatics on the mainland. By 1898 the number had decreased to 300 or 400, but it had risen to 1,830 at the time of the 1933 Census and at 30th June, 1941, numbered 2,228, of whom 2,199 were Chinese and 29 Japanese. The Japanese at the 1933 Census numbered 73. The Chinese are occupied mainly as skilled artisans and small traders. At the census of 30th June, 1947, non-Europeans numbered 2,215, of whom Chinese (1,769) and Filipinos (276) constituted the major proportion. At the same date half-castes with one of the parents a European numbered 573.

2. **Native Population.**—As a considerable portion of the Territory was not under Government influence at that time, the pre-war census of native population was not complete. A census of areas under Administration control is at present being conducted, and the number of natives enumerated by 30th June, 1950 and the estimated number of uncounted natives are shown in the following table :—

TERRITORY OF NEW GUINEA : ENUMERATED AND ESTIMATED NATIVE POPULATION AS AT 30th JUNE, 1950.

District.	Enumerated.(a)			Estimated.	Grand Total.
	Males.	Females.	Persons.		
Central Highlands ..	134,905	120,493	255,398	231,700	487,098
Sepik	77,018	64,329	141,347	24,000	165,347
Madang	53,876	33,855	87,731	16,000	103,731
Morobe	60,739	56,724	117,463	28,450	145,913
New Britain	41,972	37,413	79,385	900	80,285
New Ireland	18,960	15,993	34,953	..	34,953
Bougainville	22,080	19,111	41,191	..	41,191
Manus	6,389	6,198	12,587	..	12,587
Total	415,939	354,116	770,055	301,050	1,071,105

(a) These figures are based on the results of the census up to 30th June, 1950. The census was then still proceeding in most districts.

§ 4. The Natives.

1. **General.**—The natives are divided into two main groups—Melanesian and Papuan—the former, with a few exceptions, constituting the population of the Bismarck Archipelago, the Solomon Islands, and the coastal districts of the New Guinea mainland, the latter inhabiting the interior of the mainland. Odd tribes of Negritos exist in the mountains of New Guinea. There is a strain of Papuan, and, possibly, of Polynesian blood in the Admiralty Islanders, while the Western Islanders and the inhabitants of the small islands east and south-east of New Ireland are Micronesians. (*See* Official Year Book No. 16, p. 670, and *Official Handbook of the Territory*, Pt. V.)

2. **Land Tenure.**—Native customs in regard to the ownership and use of land may be briefly outlined as follows. The ownership and use of the land are generally individual, although, in some rare cases, particularly in North Bougainville, the communal system exists. In districts where a great many coco-nut palms are growing on native lands it is often found that the land is the property of a chief or of one of the old men of the tribe, and that the coco-nut palms growing thereon are divided into small groves, and are the property of several members of the tribe. Customs with regard to the use of unoccupied forest lands vary. Right of inheritance to land is almost invariably through the maternal branch. (*See* Official Year Book No. 17, p. 634, and *Official Handbook of the Territory.*)

3. **Research Work.**—During the German occupation of the Territory a certain amount of research work was carried out, partly by scientific expeditions, and partly by missionaries and by a local resident. For many years an anthropologist was engaged consolidating the work already done, and extending it throughout the Territory. The results of his work appear in special reports.

4. **Education.**—Provision for the education of natives is made in the Ordinance of 1922–1938 under which the Administrator is authorized to establish schools, grant money therefor, prescribe instruction, and arrange for the training of teachers and other matters. Natives are liable to pay education tax, but none has been collected since 1922–23. The European teachers have been recruited from Education Departments in Australia. During the year ended 30th June, 1950, 35 schools were maintained by the Administration for native children, three for part-native and Malay children, eight for European and four for Asian children. In addition, the Missions conducted different grades of schools having a total enrolment of 85,467 native students. Sixteen European and 302 Asian children also attended Mission schools. To assist the Missions in their educational work, the Administration provides professional advice and certain items of equipment and text-books. In addition to this assistance, the sum of £82,310 was distributed amongst the Missions as grants-in-aid during the year ended 30th June, 1950. Of this amount £53,930 was for reconstruction training.

5. **Health of Natives.**—The diseases taking the greatest toll of native life directly or through lowering vitality are—Malaria, respiratory diseases, dysentery, frambœsia, yaws, tropical ulcer, hookworm, filariasis and beri-beri.

The Health Department of the Administration consists of—(i) a staff of medical officers, medical assistants and orderlies; (ii) native hospitals at Government stations and sub-stations (its staff also supervises hospitals on plantations); (iii) a laboratory; (iv) a training system for natives as medical orderlies; (v) a scheme of distribution of medical necessaries; and (vi) leprosaria. It also undertakes the general oversight of sanitary conditions.

6. **Missions.**—A number of mission societies operate in the Territory.

The Society of the Sacred Heart of Jesus works in the Bismarck Archipelago, the Society of the Holy Ghost, the Franciscan Order and the Society of the Divine Word along the coast of north-east New Guinea from Sek to the Dutch border and in the Central Highlands, and the Marists in Buka and Bougainville. These are Roman Catholic Missions. The Protestant Missions are the Australian Methodist Mission in New Britain and New Ireland, the New Zealand Methodist Mission in Bougainville, the Lutheran Mission (supported and staffed by the Lutheran Churches in Australia and America) which works in Morobe, Madang, the Central Highlands, New Britain and Manus, the Melanesian Mission (Anglican) in New Britain, the Seventh Day Adventist Mission in Bougainville, New Britain, the mainland of New Guinea and Manus, the East and West Indies Bible Mission and the Baptist Mission in the Central Highlands. The South Seas Evangelical Mission (Undenominational) and the Assemblies of God Mission are also working in the Sepik area. All these societies include teaching with their missionary work.

§ 5. Land Tenure.

1. **Acquisition and Ownership of Land.**—The principles governing the acquisition and ownership of land and types of tenure available in New Guinea are in general similar to those which obtain in Papua. In New Guinea, although under the Land Ordinance 1922–1950 grants of freehold estates may be made, as a matter of policy freehold estates are no longer granted by the Administration, all grants now being restricted to leaseholds. However, in New Guinea the amount of freehold land of earlier origin held by private non-indigenous owners amounts to more than half a million acres. Freehold titles to this land, which includes a good deal of plantation land, may be transferred by purchase subject only to the general provision in New Guinea that dealings in land are subject to the approval of the Administrator.

The area of the Territory of New Guinea is estimated at 59,520,000 acres, of which, at 30th June, 1950, 1.53 per cent. was alienated. The following tables show the distribution according to tenure and particulars regarding leases in force in New Guinea on 30th June, 1950.

TERRITORY OF NEW GUINEA: LAND TENURE, 30th JUNE, 1950.

Tenure.	Area.
	Acres.
Alienated—	
Held by private non-indigenous inhabitants—	
Freehold	519,380
Leasehold	160,573
Held by Administration	209,240
Native Reserves(*a*)	26,611
Total	915,804
Held by Natives	58,604,196
Total Area of New Guinea	59,520,000

(*a*) Vested in Director of District Services and Native Affairs as Trustee for Natives.

TERRITORY OF NEW GUINEA: LEASES IN FORCE, 30th JUNE, 1950.

Class of Lease.	No. of Leases.	Area.
		Acres.
Agricultural	456	143,509
Pastoral	3	9,496
Residential and Business	418	454
Special	58	854
Mission	455	1,606
Leases granted to Chinese in towns	214	58
Long period leases from German régime ..	106	4,596
Total	1,710	160,573

2. **Registration of Titles.**—Under German law there was a system of registration of titles in a "Ground Book," but registration did not confer an indefeasible title. The German system has been replaced by one modelled on the Torrens plan, embodied in an Ordinance entitled the Lands Registration Ordinance 1924–1950.

§ 6. Production.

1. **General.**—The products of the Territory are obtained from its agricultural, fishing and mining industries. The only manufacturing industry of importance is that of desiccated coco-nut. Native subsistence agriculture, fishing and hunting produce most of the food requirements of the native population. The main native agricultural products are taro, yams, sweet potatoes, bananas and paw paw. Non-indigenous enterprise produces most of the commodities exported. Natives, however, do produce copra for export and native enterprise in other fields of agricultural production for export purposes is being encouraged. The principal agricultural products of New Guinea for the export trade are copra and rubber. Most of the timber milled during 1949–50 was absorbed

by local building requirements; exports of timber were only about one per cent. of total production. The main products of fisheries exported from New Guinea are trochus and green snail shell. Gold is the principal mineral mined.

2. **Agriculture.**—(i) *General.* The principal agricultural product of New Guinea is copra. Before the 1939–1945 War the peak annual exports of copra were 76,400 tons in 1936–37. The plantations suffered considerable damage during the war, but rehabilitation has been rapid and although 25 to 30 per cent. of palms were lost owing to war damage and abandonment, and the economic value of many remaining palms deteriorated owing to loss of the major portion of a number of plantations, production is now again approaching pre-war levels. Little replanting of damaged areas has taken place but a number of palms which were immature pre-war are now in bearing. Losses due to strangulation by secondary growth consequent upon abandonment were heavy amongst immature palms. Apart from coco-nuts, the main export crops were cocoa and coffee. Cocoa, by reason of extensive post-war plantings prompted by favorable prices, is now approximating the pre-war levels of exports. In 1949–50 207 tons of cocoa beans were exported from New Guinea. The average annual exports for the three years 1937–38 to 1939–40 were 243 tons. Coffee plantations which suffered extensive damage during the war are being rejuvenated, but their rehabilitation has not been rapid and the export of coffee beans in 1949–50 amounted to only 15 tons as compared with 63 tons in 1939–40. Owing to greatly increased prices, however, the value of the exports for 1949–50 (£2,797) exceeded that of the exports for 1939–40 (£2,060). The increased prices are creating interest in this crop among planters. New Guinea, like Papua, is capable of producing the wide range of crops described on p. 350 and development of these crops is being encouraged.

(ii) *Plantations.* Tables giving details of crops planted and areas and yields of plantations in 1939–40 and planted areas from 1885 to 1940 are shown in Year Book No. 38, pp. 379 and 380.

(iii) *Agricultural Experimentation and Agricultural Extension.* The Department of Agriculture, Stock and Fisheries of the Territory has been active since the war in carrying out experiments in tropical agriculture, mainly at three experimental stations. Aiyura Experimental Station in the New Guinea highlands has carried out experiments in growing cinchona, tea, coffee, food crops and various cover crops, in addition to experiments with timbers, live-stock and soil surveys. The Lowlands Experimental Station at Keravat on the Gazelle Peninsula of New Britain has done concentrated work on coco-nuts, cocoa, coffee, rubber, spices, manila hemp, jute, cotton, cover crops, sweet potato, rice and yams. This station has worked intensively on diseases and pests of coco-nuts, cocoa and oil palms. At Garaina, south of Lae on the New Guinea mainland, experiments are being conducted in the growing of tea and also coffee and cinchona. The experimental stations form an important part of agricultural extension programmes designed to service existing and developing agricultural industries and to teach agricultural techniques to the native peoples. Particular attention has been paid to promoting the growing by native enterprise of rice and ground nuts. Rice production by native growers is expanding, particularly in the vicinity of Madang, Rabaul, Buin, Wewak and Aitape. At present only upland types are in use.

3. **Live-stock.**—Little natural pasture is at present accessible in the Territory of New Guinea, though investigations have proved that good cattle country exists in the vicinity of the lower Sepik River, the nearest point of access being Marienberg, 38 miles from the river mouth. The swampy country through which the Sepik passes is not itself suitable for cattle. Apart from pasture lands which have been discovered in the Sepik area, in the Markham and Ramu Valleys there is excellent cattle country from Lae to Wau, and further inland to the upper Ramu and Purari. In the gold-fields area, also, large valleys of open country exist, probably suitable for grazing and stock-raising. An experiment is at present being conducted by the E. J. Hallstrom Trust in the breeding of Romney Marsh sheep at Nondugl in the Central Highlands District of the Territory of New Guinea.

Soils are variable and often the terrain is broken ; however, the loose, coral-derived soils and those from pumice and volcanic sands are gently undulating. The foothill soil is heavier, being generally a mixture of volcanic and sedimentary types. The hinterland soils are often heavy and lateritic. Generally, there is more good land on the island groups than on the mainland, except in certain valleys such as the Markham and Sepik.

District Agricultural Stations are located throughout the Territory. In the selection of sites for these, special consideration has been given to areas which suffered most under enemy occupation. Each of these Stations is in the charge of a District Agricultural Officer whose functions are largely those of extension. As a first step towards improving live-stock breeds and animal husbandry methods, a piggery has been established at each Station and stocked with imported Berkshires.

Pigs in many parts of the country were almost entirely annihilated during the Japanese occupation. As the pig is one of the chief sources of meat to most natives, a serious unbalancing of the native diet has been brought about in such areas. Pigs are also of considerable importance to the native people in social prestige, wealth and as a medium of exchange. With a view to increasing the number and the quality of pigs at present available, small studs of pure breeds have been established. From these studs, pigs of a superior type will be made available to natives, especially good type boars. It is hoped in this way gradually to improve the standard of native pigs.

A Quarantine Ordinance is in operation in the Territory and this is largely under the control of the Department of Public Health, in co-operation with the Department of Agriculture, Stock and Fisheries.

All stock introduced is carefully inspected in Australia prior to shipment, and on arrival is again inspected and treated for internal and external parasites. The stock is not allowed to land if parasites not already existent in the Territory are present on inspection.

4 **Timber.**—An investigation of the timber resources was made by the Commonwealth Inspector-General of Forests, and a report in connexion therewith was published in 1926. According to this report, while offering no prospects of immediate gain to large sawmilling interests, the Territory possesses forest potentialities of a high order. Surveys of the timber resources of the Morobe District indicate that there are approximately 500 million super. feet of timber in the pine forests of the Bulolo Valley. This is supporting sawmills cutting for local use, and flitches are also being exported to Australia for the manufacture of battery separator veneer. It is proposed to harvest this forest over a period of years and progressively re-afforest the area. Sawmills controlled by the Administration are established at Lae and Keravat, and are supplying local requirements. The log export trade has not yet recovered, but in 1949–50 shipments of some 926,399 super. feet of timber in the log were made.

The Forestry Ordinance 1936–1937 provides for the issue of permits and licences to cut timber. Present policy calls for the orderly development of the timber industry on sound forestry principles ; the grant of emergency timber permits to provide timber for Territory requirements ; the disposal by public tender of timber areas designated by forest officials of the Territory ; and the development of the pine stand in the Bulolo Valley by a joint company in which the Commonwealth Government shall have a majority shareholding. Timber growing on native lands cannot be acquired by private purchasers direct from the natives but must be obtained through the Administration. A royalty is payable on all forest produce taken under permit or licence. Some 26 permits covering approximately 200,000 acres, which were in force when the war intervened, were extended to cover the five-year period of suspension.

5. **Fisheries.**—The wealth of the waters of the Territory has been little exploited. Fish are caught at many places along the coast to supply the small local demand of the natives and of the few resident Europeans. Pearl-shell is exported in fair quantities, while bêche-de-mer, trochus-shell and tortoise-shell also figure amongst the exports. The value of marine products exported in 1949–50 was £17,219. A survey of the Territorial waters, undertaken with the co-operation of the Commonwealth Scientific and Industrial Research Organization with a view to ascertaining the fisheries resources and developing these and the shell industries, was completed during 1949–50.

6. **Mining.**—Except for gold there has been little mining in New Guinea. Gold has been discovered on the Waria, the Ramu, the Francisco, and the Markham Rivers, and in tributaries of the Sepik River. Rich gold was discovered in the Morobe District in 1926; the field is situated about 90 miles (40 by air) inland from Lae, the nearest coastal port. Communication is established with the coast by a regular aeroplane service and by road transport. Osmiridium is reported to have been found on the upper tributaries of the Ramu, and platinum on the Kabenau River. Copper has been discovered in the form of chalcopyrite and malachite in the Baining District. Iron occurs as magnesite and hæmatite in the Baining District, apparently in large quantities. Sulphur occurs in several localities in the volcanic regions of the Territory. Brown coal has been found on the mainland in the vicinity of Astrolabe Bay, and in the southern portion of New Ireland.

Mining is regulated by the Mining Ordinance 1928–1947. Copies of the Ordinance and Regulations made thereunder may be obtained from the Secretary, Department of Territories, Canberra.

The following table shows the production of gold during the years 1938–39, 1940–41 and 1947–48 to 1949–50 :—

TERRITORY OF NEW GUINEA : GOLD PRODUCTION.

Year.	Quantity.	Value.(a)
	Fine oz.	£
1938–39	237,705	2,153,018
1940–41	263,113	2,808,835
1947–48	82,852	891,696
1948–49	91,296	982,574
1949–50	84,958	1,209,001

(a) Valued at average price realized for fine gold in Australia.

Since the high market price of gold has been maintained, the search for profitable areas in various parts of the Territory has not diminished and systematic testing by drilling and other means has been undertaken on alluvial areas previously considered unworthy of attention. Although there were no new discoveries of alluvial or reef gold during 1949–50, work proceeded steadily on the known gold-bearing areas.

A search for petroleum has been actively conducted on the mainland. The Petroleum Ordinance 1936 has been superseded by the Petroleum (Prospecting and Mining) Ordinance 1938–1947, which has facilitated the carrying out of geological surveys and prospecting activities generally. On 30th June, 1950, two permits to search for petroleum were in force.

§ 7. Trade.

1. **Customs Tariff.**—As from 1st July, 1950, a new customs tariff came into force, This provides high revenue rates on ale, spirits, wines, timepieces, cigarette papers, fancy goods, jewellery and certain apparel and piece goods made of silk. Of 72 items

mentioned in the import schedule, 55 are on the free list. The new tariff allows duty-free treatment of necessities, but increases rates on non-necessities. The purpose of the revision is to relieve both general industrial costs and the basic costs of living with a view to encouraging further development of the Territory. The rate of duty on items not specified in the schedule is 10 per cent. ad valorem. No preferential rates are specified in the schedule.

Export duties are levied on copra, trepang, shell, feathers and sulphur. When the price, or the assessed value of copra is less than £5 15s. per ton no tariff is imposed, but when the price exceeds this figure but is not more than £11 per ton 2s. 6d. per ton is charged ; thereafter the charge increases on a sliding scale to 11s. 6d. per ton as the price rises to £18, with an additional 2s. per ton for every further increase of £1 in the price of copra. Imports in 1949-50 amounted to £4,791,799 on which £435,189 was received in import duties, while £254,489 was paid in export duties and royalties.

Provision is made in the Australian Customs Tariff (Papua and New Guinea Preference) 1306 for the free entry into Australia of certain goods produced and imported direct from the Territory of New Guinea (*see* Chapter XII.—Trade), and a proclamation of 25th September, 1935 exempted from primage duty goods produced or manufactured in the Territory.

2. **Imports and Exports.**—Values of the principal items of imports and exports for the years 1938–39, 1940–41 and 1947–48 to 1949–50 are shown below. The values of exports are expressed in Australian currency, but it is not possible to determine accurately the currency of the £ in the table of imports.

TERRITORY OF NEW GUINEA : IMPORTS AND EXPORTS.

(£.)

Particulars.	1938–39.	1940–41.	1947–48.	1948–49.	1949–50.
IMPORTS.					
Foodstuffs of animal origin ..	152,023	127,464	441,391	546,683	722,518
Foodstuffs of vegetable origin ..	158,895	145,070	489,168	767,728	692,387
Spirituous and alcoholic liquors ..	54,969	46,753	72,186	154,724	182,039
Tobacco and preparations thereof	63,122	51,931	170,545	154,029	269,029
Live animals	1,328	508	16,511	10,553	13,349
Animal substances	1,124	179	..	..	392
Vegetable substances and fibres ..	3,307	2,386	3,997	6,611	5,599
Apparel, textiles and manufactured fibres..	138,077	93,164	429,837	562,418	565,497
Oils, fats and waxes	65,901	72,153	256,196	453,387	288,965
Paints and varnishes	10,934	7,818	23,643	30,350	43,439
Stones and minerals	8,164	5,439	1,424	2,801	9,456
Metals, manufactures and machinery	470,781	252,750	683,334	1,044,340	1,164,363
Rubber and leather and manufactures thereof	16,365	16,739	35,325	42,867	62,444
Wood and wicker	29,195	9,105	43,054	78,814	141,879
Earthenware, cement, glass, etc.	13,215	8,383	25,751	40,492	64,464
Paper and stationery	22,829	19,122	60,613	57,279	65,337
Jewellery and fancy goods ..	14,133	10,045	49,284	76,145	81,844
Optical and scientific instruments	22,318	17,140	28,825	57,003	75,251
Drugs, chemicals and fertilizers ..	46,163	45,539	66,830	99,889	104,026
Miscellaneous	47,992	30,441	198,184	207,760	238,621
Total	1,340,835	962,129	3,105,098	4,393,873	4,791,799

TERRITORY OF NEW GUINEA : IMPORTS AND EXPORTS—*continued.*

(£.)

Particulars.	1938–39.	1940–41.	1947–48.	1948–49.	1949–50.
EXPORTS.					
Copra	727,949	266,970	625,662	1,522,681	2,264,114
Cocoa	6,580	11,680	16,976	36,413	31,247
Trepang	2,025	1,870	..	..	..
Shell (trochus, etc.)	10,560	7,383	21,092	24,424	16,636
Tortoise-shell	89	2	..	2	..
Gold	2,129,263	2,797,226	851,570	982,572	1,211,569
Desiccated coco-nut	69,960	93,850	..	31,373	123,142
Rubber	4,050	19,027	..	5	..
Miscellaneous	23,419	55,976	411,775	604,787	588,270
Total	2,973,895	3,253,984	1,927,075	3,202,257	4,234,978

Included in Miscellaneous in the table above are surplus war stores exported by purchasers.

3. **Direction of Trade.**—Particulars of the countries of origin of the imports into the Territory of New Guinea and of destination of the goods shipped therefrom during the years 1939–40, 1948–49 and 1949–50 are given in the following table.

TERRITORY OF NEW GUINEA : DIRECTION OF TRADE.

(£.)

Country.	Imports.			Exports.		
	1939–40.	1948–49.	1949–50.	1939–40.	1948–49.	1949–50.
Australia ..	583,291	2,693,647	2,914,594	3,283,246	2,614,367	2,546,386
United Kingdom	119,042	273,831	333,733	220,200	268,744	1,533,150
Other British Countries ..	55,306	57,879	308,367	..	316,595	54,811
China	87,412	304,310	86,595	11,115	..	12,912
Japan ..	34,921	..	..	7,266	..	..
France ..	2,523	..	..	12,291	..	..
Germany ..	17,430	..	..	2,669	..	131
U.S.A. ..	247,189	518,576	565,385	62,529	2,524	587
Other	120,983	(*a*)545,630	(*a*)583,125	81,804	27	87,001
Total ..	1,268,097	4,393,873	4,791,799	3,681,120	3,202,257	4,234,978

(*a*) Part of these imports may originate from Other British Countries, Japan, France or Germany.

The bulk of the imports into the Territory of foodstuffs, beer, coal, paints, boats, launches and soap comes from Australia, which also supplies large quantities of machinery and metal manufactures, drugs, explosives, tobacco, cigarettes, apparel, boots, leather manufactures, timber, stationery and polishes.

§ 8. Shipping and Communication.

1. **General.**—A regular passenger and freight service between Australia and the Territory is operated by Burns Philp & Co. Ltd. Vessels engaged in the trade between Hong Kong and Australia also call at Territory ports. A regular coastal and inter-island shipping service for the carriage of cargo and passengers is maintained. The vessels for this purpose are provided by the Government of the Commonwealth of Australia and operate from and to the main ports in the Territory. Shipping within the Territory is regulated by the Shipping Ordinance 1936–1939 and the Coastal Shipping, Ports and Harbours Regulations.

2. **Oversea Tonnage in 1949–50.**—The number and net tonnage of oversea vessels which entered and cleared the Territory during 1949–50 are shown hereunder.

TERRITORY OF NEW GUINEA : OVERSEA SHIPPING, 1949–50.

Nationality.	Vessels Entered.		Vessels Cleared.		Total.	
	Number.	Net Tonnage.	Number.	Net Tonnage.	Number.	Net Tonnage.
British	(a) 105	220,353	(a) 93	210,891	198	431,244
Other	9	17,655	9	17,655	18	35,310
Total	114	238,008	102	228,546	216	466,554

(a) Five British vessels were still in Territorial waters at 30th June, 1950. The remaining seven British vessels cleared inwards to Territory ports and remained in the Territory for the coastal trade.

3. **Shipping, Ports and Inland Waterways.**—Shipping services on a regular basis ply between Australia and the Territory, providing passenger and cargo accommodation. Cargo vessels have been chartered at various times to supplement the regular service. Vessels of the Eastern and Australian Shipping Line on the Australia-Hong Kong service make calls at Rabaul with imports from Hong Kong. The Australian Government is responsible for the coastal and inter-island shipping service and it provides the vessels for the purpose.

Main ports of call for oversea vessels are established at Lae, Madang and Finschhafen (mainland), Rabaul (New Britain), Kavieng (New Ireland) and Lorengau (Manus). Ports proclaimed under the Coastal Shipping Ports and Harbour Regulations for the service of local vessels are, in addition to the main ports above-mentioned, Salamaua, Wewak, Aitape and Wanimo (mainland), Gasmata and Talasea (New Britain), Namatanai (New Ireland), and Kieta and Buka Passage (Bougainville).

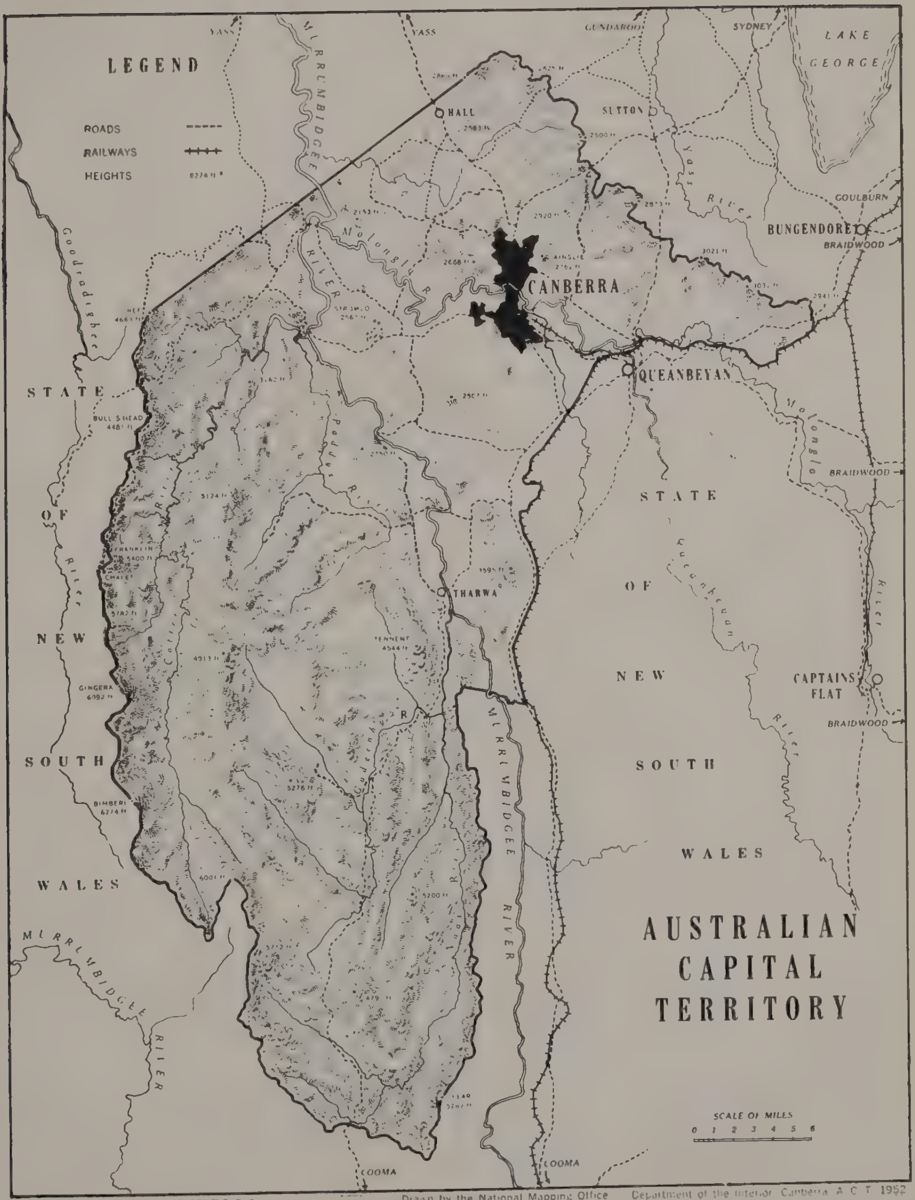
There are no prepared inland waterways. The natural river system is not generally suitable for vessels except those of small tonnage. There is a fair measure of traffic on the Sepik River.

4. **Land Communication.**—Means of communication on land are scanty. There are no railways. Roads lead from Rabaul to places within 30 or 40 miles, and there is a road 200 miles long in New Ireland and also a road from Lae to Wau in the Morobe District. Elsewhere there are few roads outside plantations and the District Officers' stations.

5. **Air Transport and Civil Airfields.**—The discovery of gold in New Guinea resulted in great aviation activity in the vicinity of the gold-fields. On account of the mountainous country and dense undergrowth between the coast and the gold-fields the task of transporting food and stores to the fields and of bringing the gold to the seaboard by land was an irksome and costly process. The fields are situated about 90 miles (40 by air) inland from Lae.

Qantas Empire Airways Ltd. operates a regular service from Australia to Lae, Madang, Rabaul, Bulolo and Wau with extensions to Finschhafen, Torokina, Kavieng and Manus Island. Commercial aircraft operators located at Lae also maintain passenger and freight-carrying services to Wau, Bulolo, Mount Hagen, Kainantu, Goroka, Finschhafen, Madang, Wewak, Aitape, Maprik and Angorum. Charters are undertaken to other parts of the Territory as occasion arises.

Further reference to New Guinea air activities is contained in Chapter V.—Transport and Communication.


LEGEND
ROADS
RAILWAYS
HEIGHTS
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YASS
YASS
GUNDAROO
SYDNEY
LAKE GEORGE
HALL
2583 ft
SUTTON
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GOULBURN
BUNGENDORE
BRAIDWOOD
2873 ft
2920 ft
2153 ft
Molonglo R
2668 ft
AINSLIE 2764 ft
CANBERRA
3021 ft
2941 ft
MURRUMBIDGEE RIVER
Goodradigbee River
4661 ft
STATE OF NEW SOUTH WALES
BULL'S HEAD 4481 ft
QUEANBEYAN
Molonglo River
BRAIDWOOD
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Paddys R
3124 ft
FRANKLIN 5400 ft
CHALET
5782 ft
Cotter R
THARWA
TENNENT 4544 ft
4913 ft
GINGERA 6092 ft
Queanbeyan River
CAPTAINS FLAT
BRAIDWOOD
5276 ft
BIMBERI 6274 ft
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5200 ft
MURRUMBIDGEE RIVER
AUSTRALIAN CAPITAL TERRITORY
SCALE OF MILES
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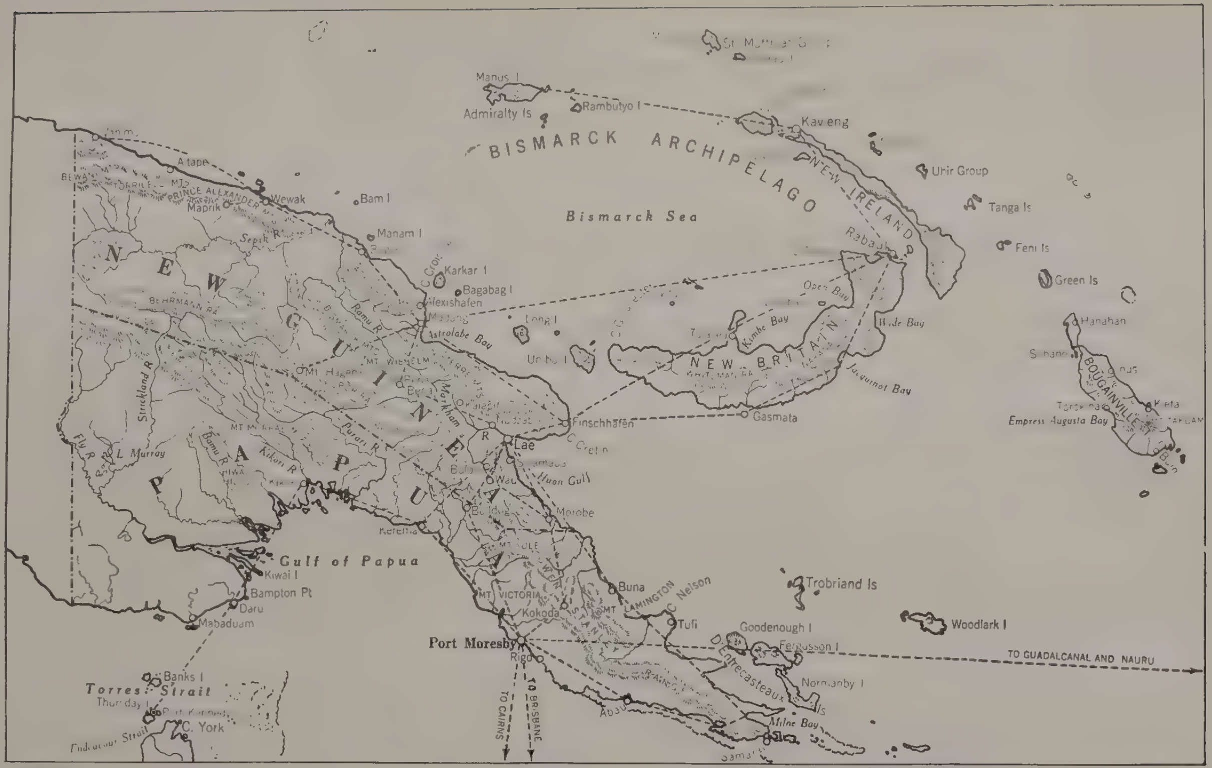
NMO/52/114 Drawn by the National Mapping Office Department of the Interior Canberra A.C.T. 1952


Manus I
Admiralty Is
Rambutyo I
Kavieng
BISMARCK ARCHIPELAGO
NEW IRELAND
Uhir Group
Tanga Is
Feni Is
Green Is
Hanahan
BOUGAINVILLE
Kieta
Empress Augusta Bay
Bismarck Sea
Rabaul
Open Bay
Wide Bay
Kimbe Bay
NEW BRITAIN
Jacquinot Bay
Gasmata
Long I
Umboi I
Finschhafen
C. Cretin
Lae
Huon Gulf
Wau
Bulolo
Morobe
Karkar I
Bagabag I
Alexishafen
Madang
Astrolabe Bay
Manam I
Bam I
Wewak
Atape
Maprik
PRINCE ALEXANDER MTS
BEWANI MTS
Sepik R
Ramu R
Markham R
MT WILHELM
MT HAGEN
BISMARCK RA
Strickland R
Fly R
L Murray
Bamu R
Kikori R
Purari R
NEW GUINEA
PAPUA
Kerema
Gulf of Papua
Kiwai I
Bampton Pt
Daru
Mabaduam
Banks I
Torres Strait
Thursday I
Endeavour Strait
C. York
MT VICTORIA
Kokoda
OWEN STANLEY RA
MT LAMINGTON
Buna
C. Nelson
Tufi
Port Moresby
Rigo
Abau
TO CAIRNS
TO BRISBANE
Trobriand Is
Woodlark I
Goodenough I
Fergusson I
Normanby I
D'Entrecasteaux Is
Milne Bay
Samarai
TO GUADALCANAL AND NAURU

DRAWN BY THE NATIONAL MAPPING OFFICE, DEPARTMENT OF THE INTERIOR, CANBERRA, A.C.T 1952

TERRITORY OF PAPUA AND NEW GUINEA

SCALE OF MILES

0 50 100 200 300 400

Main Air Routes shown thus - - - - - - - - -

§ 9. Revenue and Expenditure.

Details of the revenue collected from various sources and the expenditure during each of the years 1938–39, 1940–41 and 1947–48 to 1949–50 are given hereunder :—

TERRITORY OF NEW GUINEA : REVENUE AND EXPENDITURE.
(£.)

Particulars.	1938–39.	1940–41.	1947–48.	1948–49.	1949–50.
REVENUE.					
Taxation—					
Customs	214,629	158,221	418,618	639,169	719,665
Licences	13,796	10,408	8,148	13,782	14,959
Native Head Tax	21,417	21,786	..	..	..
Stamp duties	6,467	3,906	1,312	17,650	7,071
Postal	27,163	15,583	21,349	29,109	31,566
Lands	18,416	16,357	5,778	8,772	11,249
Mining—					
Royalty on gold	107,975	119,792	35,581	49,053	58,596
Other	16,403	50,995	13,321	10,372	10,556
Fees and fines	17,947	13,615	8,367	12,359	18,408
Sales of stores, etc.	2,170	2,011	27,002	14,686	10,081
Forestry	..	..	42,803	46,193	34,618
Grant by Commonwealth Government	..	..	1,109,494	1,588,840	2,281,140
Miscellaneous	14,453	11,076	7,430	8,060	25,308
Total	460,836	423,750	1,699,203	2,438,045	3,223,217
EXPENDITURE.					
Treasury	(a)54,736	(a)45,530	60,236	47,533	72,897
Agriculture	19,424	19,475	47,782	110,094	156,679
Public Justice	34,245	31,606	82,898	115,309	157,540
Public Health	89,784	80,162	223,749	445,659	529,134
Public Works	34,802	22,730	274,599	303,729	464,111
District Services and Native Affairs	125,876	106,107	584,776	772,003	667,217
New Works	69,146	48,509	114,736	387,913	521,216
Native Welfare	6,453	6,078	(b)	(b)	(b)
Forestry	..	..	33,972	48,663	62,588
Other	68,114	71,595	234,181	362,401	591,835
Total	502,580	431,792	1,656,929	2,593,304	3,223,217

(a) Includes Audit, subsequently included in Other. (b) Included elsewhere.

For information for 1945–46 and 1946–47 *see* Papua, § 7, p. 354.

TRUST TERRITORY OF NAURU.

1. **General.**—Nauru is an oval-shaped atoll about 12 miles in circumference, having an area of about 5,263 acres, of which approximately two-thirds is phosphate-bearing. It is situated in latitude 0° 32′ south of the Equator and longitude 166° 55′ east of Greenwich. Portion of the island between the sandy beach and the coral cliffs is fertile, and it is there that the Nauruans reside. With the exception of a small fringe around an inland lagoon, the plateau which contains the phosphate deposits possesses few food plants and is uninhabited, but portion of the area has been planted with fruit trees. The system of land tenure is governed by an old custom, and, with the exception of small allotments held by the Government, the British Phosphate Commissioners and the Missions, the

whole of the island is owned by individual natives. The temperature range is from 76° at night to 94° during the day and the average humidity about 80 per cent. Normally the rainfall is comparatively low for islands of the Pacific, the average for twenty years from 1920 to 1940 being 80.5 inches. However, falls as high as 181.76 inches during 1940 and as low as 12.29 inches during 1950 have been recorded.

2. **History.**—The island, discovered by Captain Fearn in 1798, was annexed by Germany in 1888, and prior to 1914 was part of the protectorate of German New Guinea.

In November, 1914, Nauru was occupied by a detachment from the Australian Naval and Military Expedition at Rabaul, and it was included in the cession of colonies made by Germany in 1919 to the Allied and Associated Powers, whose representatives agreed that a mandate for its administration should be conferred upon His Britannic Majesty. The mandate was confirmed by the Council of the League of Nations on 17th December, 1920. On 2nd July, 1919, the British, Australian and New Zealand Governments agreed that the administration (which, since 1915, had been in charge of an official appointed by the British Colonial Office) should be vested in an Administrator, who took up duty in June, 1921. The agreement between the three Governments was approved by the Commonwealth Parliament in the Nauru Island Agreement Act 1919, and is shown in the Schedule to that Act. A supplementary agreement concerning Nauru was drafted in May, 1923, and ratified by the Commonwealth Parliament by the Nauru Island Agreement Act 1932.

On 25th August, 1942, nine months after the outbreak of the war in the Pacific, communications with Nauru ceased, and the island was occupied by Japanese forces. It was re-occupied by a joint Australian Naval and Military Force on 14th September, 1945, and civil administration was re-established on 1st November, 1945.

3. **Trusteeship Agreement.**—On 1st November, 1947 the General Assembly of the United Nations approved a Trusteeship Agreement for the Territory of Nauru submitted by the Governments of Australia, New Zealand and the United Kingdom in substitution for the terms of the mandate under which the Territory had been administered. This Agreement designates the Governments of Australia, New Zealand and the United Kingdom as the Joint Administering Authority, with the Government of Australia continuing, on behalf of the Administering Authority, to exercise full powers of legislation, administration and jurisdiction in and over the Territory. The terms of the Agreement are as follows:—

> *Preamble :* In pursuance of a Mandate conferred upon His Britannic Majesty, the Territory of Nauru has been administered in accordance with Article 22 of the Covenant of the League of Nations by the Government of Australia on the joint behalf of the Governments of Australia, New Zealand and the United Kingdom of Great Britain and Northern Ireland.
>
> The Charter of the United Nations, signed at San Francisco on 26th June, 1945, provides by Article 75 for the establishment of an international trusteeship system for the administration and supervision of such territories as may be placed thereunder by subsequent individual agreements.
>
> His Majesty desires to place the Territory of Nauru under the trusteeship system and the Governments of Australia, New Zealand and the United Kingdom undertake to administer it on the terms set forth in the present Trusteeship Agreement.
>
> Therefore, the General Assembly of the United Nations, acting in pursuance of Article 85 of the Charter, approves the following terms of the trusteeship for the Territory of Nauru in substitution for the terms of the Mandate under which the Territory has been administered:—
>
> *Article* 1. The Territory to which the Trusteeship Agreement applies (hereinafter called the Territory) consists of the island of Nauru (Pleasant Island) situated approximately 167° longitude East and approximately 0° 25′ latitude South, being the Territory administered under the Mandate above referred to.
>
> *Article* 2. The Governments of Australia, New Zealand and the United Kingdom (hereinafter called the Administering Authority) are hereby designated as the joint authority which will exercise the administration of the Territory.

Article 3. The Administering Authority undertakes to administer the Territory in accordance with the provisions of the Charter and in such a manner as to achieve in the Territory the basic objectives of the international trusteeship system, which are set forth in Article 76 of the Charter.

Article 4. The Administering Authority will be responsible for the peace, order, good government and defence of the Territory, and for this purpose, in pursuance of an agreement made by the Governments of Australia, New Zealand and the United Kingdom, the Government of Australia will on behalf of the Administering Authority and except and until otherwise agreed by the Governments of Australia, New Zealand and the United Kingdom continue to exercise full powers of legislation, administration and jurisdiction in and over the Territory.

Article 5. The Administering Authority undertakes that in the discharge of its obligations under Article 3 of this agreement—

1. It will co-operate with the Trusteeship Council in the discharge of all the Council's functions under Articles 87 and 88 of the Charter;
2. It will, in accordance with its established policy—
    - (*a*) take into consideration the customs and usages of the inhabitants of Nauru and respect the rights and safeguard the interests both present and future of the indigenous inhabitants of the Territory; and in particular ensure that no rights over native land in favour of any person not an indigenous inhabitant of Nauru may be created or transferred except with the consent of the competent public authority;
    - (*b*) promote, as may be appropriate to the circumstances of the Territory, the economic, social, educational and cultural advancement of the inhabitants;
    - (*c*) assure to the inhabitants of the Territory, as may be appropriate to the particular circumstances of the Territory and its peoples, a progressively increasing share in the administrative and other services of the Territory and take all appropriate measures with a view to the political advancement of the inhabitants in accordance with Article 76 (*b*) of the Charter;
    - (*d*) guarantee to the inhabitants of the Territory, subject only to the requirements of the public order, freedom of speech, of the press, of assembly and of petition, freedom of conscience and worship and freedom of religious teaching.

Article 6. The Administering Authority further undertakes to apply in the Territory the provisions of such international agreements and such recommendations of the specialized agencies referred to in Article 57 of the Charter as are, in the opinion of the Administering Authority, suited to the needs and conditions of the Territory and conducive to the achievement of the basic objectives of the trusteeship system.

Article 7. In order to discharge its duties under Article 84 of the Charter and Article 4 of the present agreement, the Administering Authority may take all measures in the Territory which it considers desirable to provide for the defence of the Territory and for the maintenance of international peace and security.

4. **Administration.**—The administration of the island is vested in the Administrator, who is obliged to conform to instructions issued by the Government which appointed him. Until the Government of Australia ceases to exercise full powers of legislation, administration and jurisdiction in and over the Territory on behalf of the Administering Authority in pursuance of Article 4 of the Trusteeship Agreement, all ordinances made by the Administrator are subject to confirmation or disallowance by the Governor-General of Australia acting on the advice of the Federal Executive Council. All administration expenses are met from local revenue and phosphate royalties. Native industries such as canoe-building, fishing, mat-making, etc., are encouraged by the provision of prizes at annual competitions. An agency of the Commonwealth Savings Bank has been established. There is a co-operative store managed to a large extent by

the natives. The store books, however, are audited by Government officers. Natives are not allowed to carry or be in possession of firearms, and the use by them of intoxicating liquors and deleterious drugs is prohibited.

5. **Population.**—The population figures on 1st April, 1939, 31st December, 1946 and 30th June, 1947 to 1950 are shown hereunder. Details are not available for the years 1942 to 1945, the period of Japanese occupation :—

TERRITORY OF NAURU : POPULATION.

Race.	1st April, 1939.	31st Dec., 1946.	30th June, 1947.	30th June, 1948.	30th June, 1949.	30th June, 1950.
Europeans	171	159	192	247	247	278
Chinese	1,512	787	1,163	1,370	1,440	1,491
Nauruans (*a*) ..	1,765	1,369	1,379	1,448	1,524	1,582
Other	44	33	31	97	58	81
Total	3,492	2,348	2,765	3,162	3,269	3,432

(*a*) The natives of Nauru are Micronesians.

During the year ended 30th June, 1950, there were 88 births, compared with 85 during the year ended 30th June, 1949. In 1949–50 there were 15 marriages and 22 deaths.

6. **Health.**—Cases of the usual diseases known in the Pacific occur. Venereal disease is rare, but elephantiasis is occasionally met with. An area has been set apart for the segregation of lepers, and the latest methods of treatment are applied. The total number of persons receiving treatment at 30th June, 1950, was 68 of whom 12 were in segregation at the Leper Hospital. Two hospitals are maintained on the island, one by the Administration for Nauruans, and one by the British Phosphate Commissioners for their employees. In common with other natives, the Nauruans are very susceptible to tuberculosis and influenza, and in 1921 an influenza epidemic caused the deaths of 230 islanders. Dysentery, both amœbic and bacillary, is endemic. A regular anti-mosquito campaign is conducted. Steps have been taken by the authorities to improve the water supply and to provide efficient sanitation generally. Every Nauruan is required to undergo a medical examination at intervals of three months. Baby clinics have been established to give help and advice to Nauruan mothers in regard to infant nurture.

7. **Education.**—Formerly the education of Nauruan and other native children was undertaken by the Missions subsidized by the Administration, but on 1st October, 1923, the Administration assumed responsibility for education. There are 8 primary schools for native, and one for European children. A total of 358 native and 48 European children was enrolled at 30th June, 1950. The European school is in the charge of a teacher on loan from the Victorian Education Department. Education generally is controlled by a Director of Education.

The curriculum is similar to that of corresponding schools in Australia, and the teaching is, as far as possible, wholly in English. Education is compulsory between the ages of six and sixteen for Nauruan and other native children.

8. **Judiciary.**—The judicial power is vested in the Administrator in a Central Court and a District Court. The right of appeal is provided.

9. **Religion.**—The London Missionary Society (Protestant) and the Sacred Heart of Jesus Mission (Roman Catholic) operate in Nauru.

10. **Phosphate Deposits.**—(i) *General.* From 1906 to 1919 the deposits were worked by the Pacific Phosphate Company, which also worked the deposits on Ocean Island

(about 165 miles east of Nauru and part of the Gilbert and Ellice Islands Colony administered by the Colonial Office). The quantity remaining on Nauru has been estimated at about 70,000,000 tons, and the exports average 85 per cent. to 88 per cent. of tricalcium phosphate.

The interests of the Pacific Phosphate Company in the two islands (though not in other islands in the Pacific in which it had workings) were bought by the British, Australian and New Zealand Governments in 1919 for £3,500,000, the purchase money being contributed in the proportions of 42, 42, and 16 per cent. respectively. The Agreement of 2nd July, 1919, provides for the working of the deposits by three British Phosphate Commissioners, one appointed by each Government; and the three countries are entitled to receive the output in the same proportions of 42, 42, and 16 per cent.

(ii) *Royalty on Phosphate.* Under a revised agreement between the British Phosphate Commissioners and the Nauruan landowners, an increased royalty of 1s. 1d. per ton of phosphate exported has been payable from 1st July, 1947, as follows :—

(*a*) 6d. per ton to be paid to the Nauruan landowner concerned;

(*b*) 3d. per ton to the Administrator for the benefit of the Nauruan people;

(*c*) 2d. per ton to the Administrator to be held in trust for the Nauruan landowner concerned and invested at compound interest for a period of 20 years. The capital will then remain invested and the interest thereon will be paid to the landowner.

(*d*) 2d. per ton to the Administrator to be held in trust for the Nauruan community and invested until the year 2000 at compound interest.

From 1st July, 1947 the lump sums payable to landowners from whom phosphate-bearing lands are leased were also increased to £45 per acre, with a minimum payment of £7 10s. for areas less than an acre.

(iii) *Nauru and Ocean Island Phosphate Industry.* The following table shows particulars regarding exports of phosphate during the years 1938–39 and 1946–47 to 1949–50 :—

NAURU AND OCEAN ISLAND : EXPORTS OF PHOSPHATE.

Year.	Total.	Proportion to Australia.	Proportion to New Zealand
	Tons.	%	%
1938–39	1,228,590	67.06	23.63
1946–47	213,875	87.07	12.93
1947–48	468,839	72.77	27.23
1948–49	857,824	78.18	21.82
1949–50	1,285,998	76.11	23.89

(iv) *Accounts of Commission.* A statement of Nauru and Ocean Island activities for the years 1938–39 and 1946–47 to 1949–50 is shown hereunder :—

NAURU AND OCEAN ISLAND : SALES OF PHOSPHATE.

(£.)

Heading.	1938–39.	1946–47.	1947–48.	1948–49.	1949–50.
Receipts from sales, etc. ..	909,027	551,537	1,040,086	1,550,769	2,071,228
F.o.b. cost, including interest on capital, sinking fund, etc.	906,133	508,224	1,037,914	1,546,065	2,063,417

During the period of the Japanese occupation from August, 1942 to September, 1945, while waiting to resume activities at Nauru and Ocean Island, the Commissioners were engaged in meeting the phosphate requirements of Australia and New Zealand from other available sources. Reconstruction of equipment destroyed during the Japanese occupation is now practically completed and a programme of improvements and additions has been commenced.

The amount due by the British Phosphate Commissioners to the partner Governments for purchase-money and other capital sums was £3,666,457 on 30th June, 1921, and at 30th June, 1942, this had been reduced to £3,024,373. The partner Governments agreed to a suspension of interest and sinking fund payments from 1st July, 1942, while operations at Nauru and Ocean Island were curtailed. Modified payments were resumed in 1946–47, pending a review of the position.

The review was carried out in 1950, as a result of which the revised capital indebtedness of the Commissioners to the partner Governments at 30th June, 1950 was determined at £3,881,711. Interest and sinking fund payments were resumed with effect from 1st July, 1950 on the basis of repayment of the revised capital indebtedness in 35 years.

(v) *Employees.* Apart from a limited number of Europeans and a few Pacific Islanders, the employees are Chinese engaged under a one year's contract. Increasing numbers of Nauruans are being employed, mainly in trade capacities.

(vi) *Christmas Island Phosphates.* It may not be inappropriate to refer here to the phosphate deposits on Christmas Island in which the Australian Government is interested. The concession to work phosphate at Christmas Island, situated in the Indian Ocean near Java, had been held since 1897 by the Christmas Island Phosphate Company Limited, a private company incorporated in England.

The Australian and New Zealand Governments, jointly, have acquired the Company's interests and assets at Christmas Island as at 31st December, 1948.

The undertaking will be controlled by an authority to be appointed by the Australian and New Zealand Governments which will arrange for the phosphate to be distributed by the British Phosphate Commissioners, in conjunction with supplies obtained from Nauru and Ocean Island, to meet the agricultural requirements of Australia and New Zealand. In the meantime the British Phosphate Commissioners are so operating the undertaking on the direct behalf of the Australian and New Zealand Governments.

11. **Trade.**—The Customs Tariff of Nauru provides for the free admission of all goods other than cigars, cigarettes, tobacco, spirits, wines, beer, cider, and perry, and cylinder blocks for motor cycle engines. Articles imported by the Administration for its own use and spirits for scientific purposes are exempt.

The Tariff rates apply to all countries alike. Information regarding imports and exports for the years 1939, 1941 and 1947–48 to 1949–50 is shown in the following table.

TERRITORY OF NAURU : IMPORTS AND EXPORTS.

Heading.		1939.	1941.	1947–48.	1948–49.	1949–50.
Imports ..	£	170,624	106,978	621,764	527,104	646,155
Exports—						
Phosphate ..	tons	932,100	99,150	263,507	680,746	1,009,266
	£	605,974	69,375	527,014	1,174,287	1,589,594

Of the total imports, Australia supplied £492,560 or 76.23 per cent. during 1949–50; the balance came mainly from the United Kingdom, New Zealand and China in that order.

In 1949–50, 779,456 tons of phosphate were exported to Australia, and 229,810 tons to New Zealand.

12. **Revenue and Expenditure.**—The revenue and expenditure of the Administration during the years 1939, 1941 and 1947–48 to 1949–50 were as follows :—

TERRITORY OF NAURU : REVENUE AND EXPENDITURE.

(£.)

Heading.	1939.	1941.	1947–48.	1948–49.	1949–50.
Revenue	33,084	12,023	23,745	34,204	42,103
Expenditure	29,391	23,951	96,347	105,673	68,567

Of the revenue for the year ended 30th June, 1950, royalty on phosphate amounted to £25,443, post office and radio receipts, £3,547 and customs duties, £3,758.

CHAPTER XI.

LABOUR, WAGES AND PRICES.

A. RETAIL PRICES AND PRICE INDEXES.

§ 1. Collection of Information as to Retail Prices.

The retail prices of the extensive range of commodities and services in common demand (generally referred to as the "regimen") used in compiling the All Items ("C" Series) Retail Price Index have been ascertained at frequent and regular intervals since 1923 for each of the six capital cities and for 27 of the more important towns of Australia. Comparable information is available for the month of November in each year 1914 to 1922 for each of the six capital cities. The complete list of items covered by the retail price regimen is published in the annual *Labour Report*, and a summary of the main groups and sections of the regimen is given in § 6 of this chapter.

The retail prices of food and groceries in approximately 200 towns throughout Australia were collected as at November of each year from 1913 to 1942, when collection was discontinued.

Retail prices of food and groceries and average rentals of houses for earlier years extending back to 1901 were collected by this Bureau, and in some cases have been recorded by the Statisticians of various States as far back as 1864.

The methods by which prices used in the "C" Series Index are ascertained and the measures adopted to ensure their accuracy and comparability are briefly as follows :—

(i) Representative and reputable retailers are selected for each city and town covered by the Index and each is required to furnish information as to prices monthly in respect of food and groceries and quarterly in respect of other items. Prices for each item are obtained where practicable from ten or more retailers in each of the capital cities, and from five or more retailers in each of the provincial towns. To cover all commodities in the regimen, collection is made from approximately sixty retailers in each capital city and thirty in each provincial town.

(ii) Information is collected under authority of the Census and Statistics Act 1905–1949, which requires that information be supplied accurately and promptly and ensures that particulars supplied by individual retailers will not be divulged to any other person or Government authority. Penalties are provided against failure to supply information, against supplying false information and against failure to answer truthfully any question asked by an authorized officer in respect of the contents of any return.

(iii) The actual collection of returns is carried out by qualified Field Officers of the Commonwealth Bureau of Census and Statistics working under the supervision of the Statisticians of the respective States. These Field Officers have very wide powers of investigation, including entry of premises and inspection of goods, records, etc.

(iv) The Field Officers not only receive and check returns but visit the retail shops concerned, whenever necessary, to obtain requisite information. In respect of articles of clothing and the like, where variation of quality may be considerable, Field Officers are equipped with samples of the goods used for price comparisons. In such cases the Field Officers visit every retail informant at each quarterly collection and personally inspect the relevant goods and prices thereof.

(v) Before each quarterly collection Supervising Field Officers review the standards of the whole of the items for which prices are collected after making extensive inquiries among manufacturers, wholesalers and retailers. These Supervising Field Officers periodically accompany Field Officers at their price collections and check their work. This not only ensures accuracy and assiduity but also that all Field Officers work on uniform lines and that, as far as care and effort can make it possible, prices for identical goods and quality will be recorded at all times and for all places.

(vi) The list of items in the regimen and the standards thereof are revised from time to time to keep them in harmony with changing conditions. Where such changes become necessary suitable adjustment is made in computing the retail price index to ensure that it reflects changes in price with due precision and that it is not vitiated by the influence of other changes. (*See also* § 8 of this chapter.) Because of rapidly changing conditions since 1948, prices have been ascertained for a large number of items not embraced in the index, and for an increasing number of types of "regimen" items. The purpose of this is to ensure that the index is kept representative and reliable within its definition.

(vii) Returns of rents for unfurnished houses of four and five rooms are made at the middle of each quarter by a representative number (ranging up to 30) of house agents in each city and town covered by the Index, for brick and wooden houses respectively, classified according to number of rooms. These returns show the weekly rental of a substantial number of individual houses, each of which is selected by the Field Officer as suitable for inclusion in a sample designed to measure the quarterly ratio of change in weekly rentals. The aim is to measure variations equivalent to change in price for a constant standard. The ratio of change is used to vary basic average rentals derived from the Census of 1933 and other records and was checked with the results of the Census of 1947. Although expressed in money terms, the average rentals as published are essentially indexes. As such they do not necessarily indicate the average amount of rental actually paid for all rented houses, and still less do they indicate the rental at which vacant or new houses can be rented.

§ 2. Retail Price Indexes.

1. **General.**—The basic principle of a retail price index is relatively simple. It is to select commodities representative of the field to be covered and to combine their prices at regular intervals in accordance with their relative importance in that field. The aim is to measure the degree of change in prices for the selected field taken as a whole.

In practice the application of this principle over a term of years presents great difficulty by reason of the numerous changes which occur in the type, grade and relative quantities of many of the items commonly used.

A full explanation of the methods adopted and an analysis of problems involved is contained in the Appendix to *Labour Report* No. 9.

For convenience the group of selected items is called a " regimen ", and the quantities consumed per annum of each item used in the index are called " mass units " or " weights ". These terms are used herein. In compiling the index the price of each item is multiplied by its quantity " weight ", and then by its appropriate population or household " weight ". The sum of these products for all items at any given date represents an " aggregate expenditure ". The " aggregate expenditures " for successive periods are converted into an index by denoting the aggregate of a selected or " base " period as 1,000, and calculating all index-numbers to such base by the proportions which their aggregates bear to that of the base period. (*See also* § 6 (2) of this chapter.)

2. **Essential Features.**—Apart from clear thinking, common sense and sound arithmetic, the prime essentials in compiling a retail price index are—

(*a*) that prices be accurately ascertained at regular intervals for goods of constant grade and quality;
(*b*) that the regimen be as representative as possible of the field to be covered;
(*c*) that the weights be in approximate proportion to quantities actually used in the selected field.

3. **The Regimen.**—The regimen must be a selected regimen because it is impossible in practice to ascertain at regular intervals prices of every item of goods and services entering into household expenditure. Even in normal times there is considerable difficulty in ensuring that the selected items are always a true sample. Some items which it would be desirable to include must be excluded because comparative prices cannot be accurately ascertained for them at different times and different places. It is deemed better to limit the regimen of the index to items for which price variations can be ascertained with reasonable accuracy than to distend the regimen by including items for which price comparisons are necessarily inaccurate. Similarly, many items of small aggregate or individual importance are excluded. The regimen of the index therefore is not (as is sometimes erroneously supposed) a basic wage regimen nor yet is it a full list of component items in a standard of living. It does not imply that any particular goods or any selected grades or quantities of these goods should enter into determination of a basic or living wage. In fact the regimen used for the " C " Series Index is simply a selected list of items combined in certain proportions for the purpose of measuring price variations. The items are representative of the fields covered, and the proportions approximate to those in average consumption so far as can be ascertained.

The regimen and " weights " used in the " C " Series Index are published in full in the annual *Labour Report*. The regimen comprises 160 commodities and services, consisting of 20 items of Groceries; 6 of Dairy Produce; 15 of Meat; 1 of Rent; 77 of Clothing and Footwear; and 41 of Miscellaneous Household Expenditure comprising Household Drapery (9), Household Utensils (20), Fuel and Light (4), Union and Lodge Dues, Medicine, Newspapers, Recreation, Smoking, Fares and School Requisites (8).

4. **Purpose of Retail Price Indexes.**—Retail price indexes are designed to measure the extent of changes in price levels only. While they may be used as indicating proportionate variations in cost of a *constant* standard of living, they do not measure the absolute cost of any standard of living, nor the cost of changes in the standard of living. In other words, they measure, as nearly as may be, the proportionate change in aggregate cost of specified quantities and qualities of the selected regimen of items included in the index. The regimen is representative of a high proportion of the expenditure of wage-earner households (*see* the fourth paragraph on page 393).

5. **Effects of Abnormal Conditions on Indexes.**—Under abnormal conditions since 1940 scarcity of certain types of goods, erratic supply and changes of grades in common use have created unusual difficulty in obtaining the data necessary for measuring variations in prices. In some instances, this has rendered it necessary to substitute new grades,

qualities or types of articles for those formerly used as indicators of changes in price. This has been the case more particularly in the clothing, household drapery and household utensils sections of the regimen. Substitutions of similar kind were necessary at times under normal conditions in order to meet changes of fashion and usage. Such substitutions are not injurious to the index provided the transitional difficulties can be solved as they arise. No change in principle is involved. The index continues to measure as accurately as may be, price variations, and price variations only. Just as in the pre-war period, those differences in prices which are solely due to substitution of a new item for one which has ceased to be available or in common use are neutralized by taking the price of the old item as typical of price variation in its class up to the time of substitution, and the prices of the new item as typical of such changes in price thereafter.

In normal times, popular usage of items in general consumption changes slowly, and the weight of items and groups in the regimen is changed only at long intervals. In abnormal times, scarcity of supplies of some goods, rationing and kindred factors actually produce short term changes in usage. The weights applicable to the items in the regimen cannot, however, be changed frequently and at short intervals. (*See* § 8 (3) of this chapter.)

§ 3. Various Series of Retail Price Index-Numbers.

Two main series of retail price index-numbers are compiled and shown in some detail in the following pages, namely :—

(i) the " B " Series Index relating only to food, groceries and housing, continuously available since 1907 ;

(ii) the " C " Series Index relating to food, groceries, housing, clothing, household drapery and utensils, fuel and light, and other miscellaneous items of household expenditure, continuously available from 1914.

The " B " Series Index comprises only the food, groceries and housing sections of the " C " Series Index.

The " C " Series Index in total provides a reliable measure of aggregate variations in retail prices (as well as of group indexes for component sections) of a high percentage of goods and services used in wage-earner households. This index is compiled for—

(*a*) the capital city of each of the six States,

(*b*) four other principal towns in each of the six States,

(*c*) weighted average of five towns (including capital city) in each of the six States,

(*d*) weighted average for the six capital cities combined,

(*e*) weighted average for the thirty towns (including capital cities),

(*f*) separate indexes for Warwick, Port Augusta, Whyalla and Canberra.

The " C " Series Index forms the basis of the " Court " Series Index used by the Commonwealth Court of Conciliation and Arbitration for the " cost of living " adjustments of wages prescribed by awards made by the Court. (*See* § 9 of this chapter.)

§ 4. Retail Price Levels (" C " Series Index) 1914-1951.

The aggregate indexes for November, 1914, 1921 and the years 1929, 1939 and 1946 to 1951 for the Thirty Towns are published in summary form on page 389 of this chapter, while the following table furnishes the relevant index-numbers for the Six Capital Cities as a whole for certain significant dates since November, 1914—the earliest date for which this index is available.

ALL ITEMS (" C " SERIES) RETAIL PRICE INDEX-NUMBERS.

WEIGHTED AVERAGE OF SIX CAPITAL CITIES.

(*Base:* 1923–27 = 1,000.)

1914, November	687	(Beginning of War I.)
1918, November	905	(End of War I.)
1920, November	1,166	(Post-War peak)
1922, November	975	(Post-War trough)
1929, Year	1,033	(Pre-Depression peak)
1933, Year	804	(Depression trough)
1939, September Quarter	916	(Pre-War II.)
1943, March Quarter	1,123	(Pre-Price Stabilization)
1943, June Quarter	1,143	(War II. peak)
1945, September Quarter	1,126	(End of War II.)
1951, December Quarter	2,042	

The index reveals a rise of approximately 32 per cent. during the first world war, followed by a further rise of 29 per cent. in the two post-war years (November, 1918, to November, 1920). From November, 1920 to November, 1922, there was a fall of 16 per cent. and the index remained relatively stable until the onset of the depression in 1929. During the four years of the depression 1929 to 1933 the index fell by 22 per cent., rising thereafter steadily until 1939 when it was nearly 14 per cent. above the level of 1933, and approximately at the level it had occupied at the date of the Armistice of 1918. Between the outbreak of war (September, 1939) and March, 1943 (pre-price stabilization) the index rose by approximately 23 per cent. to a level slightly below that reached at the height of the post-war boom in 1920. Compared with the March Quarter, 1943, the index-number at the close of the war was practically unchanged. At December Quarter, 1951, the level was approximately 75 per cent. above that of the 1920 peak period.

Immediately after the outbreak of the war price control was established by the Government under Regulations dated 28th September, 1939, and a national policy of price stabilization was applied as from 12th April, 1943, backed by more stringent price control and price subsidies. The retail price level, as measured by the index, remained relatively steady throughout 1944 and 1945 at the level of March, 1943. This stabilized level was approximately 23 per cent. above that of 1939 and 63 per cent. above the level prevailing at the beginning of the first world war in 1914. Since June Quarter, 1946, war-time controls, subsidies, etc., have been progressively modified and inflationary influences have supervened. The retail price index for December Quarter, 1951, was 123 per cent. above that of September Quarter, 1939, and 81 per cent. above the level of September Quarter, 1945.

A reference to price control measures and to price stabilization in Australia is given on page 398.

The movement in the various groups of the index and in the index as a whole for each year for which it has been compiled is shown in the following table for the six capital cities as a whole.

ALL ITEMS (" C " SERIES) RETAIL PRICE INDEX AND ITS " GROUP " INDEX-NUMBERS(*a*) FOR THE SIX CAPITAL CITIES COMBINED, 1914 TO 1951.

(*Base of Each Group : Weighted Average of Six Capital Cities*, 1923–27 = 1,000)

Period.	Food and Groceries.	Rent (4 and 5 Rooms). (*b*)	Food, Groceries and Rent (4 and 5 Rooms) (" B " Series).	Clothing.	Miscellaneous.	All Items (" C " Series) Index.
1914 (*c*)	641	649	644	754	749	687
1915 (*c*)	842	659	777	792	786	782
1916 (*c*)	812	665	760	881	802	795
1917 (*c*)	836	685	782	992	882	847
1918 (*c*)	861	722	812	1,097	972	905
1919 (*c*)	1,026	768	934	1,238	1,036	1,022
1920 (*c*)	1,209	851	1,082	1,365	1,194	1,166
1921 (*c*)	950	877	924	1,246	1,010	1,013
1922 (*c*)	945	929	939	1,052	999	975
1923	1,009	950	988	1,045	999	1,003
1924	969	988	975	1,003	1,004	987
1925	998	1,008	1,002	991	992	997
1926	1,023	1,026	1,024	986	998	1,011
1927	1,000	1,030	1,011	975	1,008	1,002
1928	985	1,066	1,014	997	1,010	1,009
1929	1,044	1,073	1,054	996	1,007	1,033
1930	941	1,047	978	951	999	975
1931	826	901	852	853	973	873
1932	796	817	803	804	958	830
1933	751	804	768	787	950	804
1934	783	810	792	785	944	817
1935	806	839	818	783	946	832
1936	825	879	844	792	947	850
1937	851	912	872	811	960	873
1938	886	942	906	829	961	897
1939	927	965	939	841	962	920
1940	939	973	950	956	998	957
1941	947	976	956	1,118	1,060	1,008
1942	1,031	976	1,007	1,308	1,112	1,091
1943	1,037	975	1,011	1,440	1,160	1,131
1944	1,026	976	1,004	1,435	1,165	1,126
1945	1,034	975	1,009	1,425	1,161	1,126
1946	1,036	976	1,010	1,505	1,167	1,145
1947	1,100	977	1,050	1,566	1,199	1,188
1948	1,256	979	1,145	1,744	1,257	1,295
1949	1,394	982	1,230	1,997	1,338	1,415
1950	1,566	987	1,336	2,286	1,435	1,560
1951	2,041	1,009	1,634	2,749	1,679	1,883
Quarter—						
1939—March	935	959	942	832	960	919
June	925	963	938	836	961	917
September	920	967	936	836	961	916
December	927	969	941	858	967	926
1947—March	1,071	976	1,032	1,525	1,181	1,165
June	1,088	976	1,042	1,534	1,184	1,174
September	1,104	977	1,052	1,566	1,213	1,192
December	1,138	977	1,073	1,639	1,217	1,221
1948—March	1,190	978	1,105	1,661	1,231	1,248
June	1,229	979	1,129	1,720	1,248	1,278
September	1,274	979	1,156	1,778	1,271	1,311
December	1,330	980	1,190	1,818	1,277	1,341
1949—March	1,361	981	1,209	1,849	1,304	1,364
June	1,388	981	1,226	1,963	1,325	1,403
September	1,396	982	1,232	2,043	1,345	1,428
December	1,429	983	1,252	2,132	1,378	1,466
1950—March	1,473	984	1,279	2,156	1,402	1,491
June	1,520	986	1,308	2,261	1,413	1,534
September	1,582	987	1,346	2,316	1,432	1,572
December	1,689	989	1,412	2,410	1,492	1,643
1951—March	1,790	1,004	1,480	2,487	1,564	1,713
June	1,925	1,007	1,563	2,746	1,641	1,833
September	2,136	1,010	1,692	2,833	1,715	1,943
December	2,311	1,013	1,800	2,930	1,794	2,042

(*a*) *See* footnote (*a*) on page 383. (*b*) *See* footnote (*b*) on page 383. (*c*) November.

§ 5. Increases in Retail Prices since Outbreak of War in 1939.

1. **Australia.**—The following statement shows for the Six State Capitals and Canberra separately and for the Six State Capitals as a whole, the percentage increases which have taken place in retail prices of items included in the " C " Series Index from September Quarter, 1939 to December Quarter, 1951, inclusive. The proportionate increase in the total index for each capital city is shown in the line marked " Total ". In the column headed " C " Series Index the total percentage rise is dissected to show what part of it was due to the rise in prices in each of the four main groups of items. Thus, of the 125.1 per cent. increase for Sydney 56.8 was due to food and groceries, 0.4 to house rent, 50.1 to clothing and 17.8 to miscellaneous items. The column headed " Group Index " shows the percentage increase in prices of items in each group considered as a group. Thus for Sydney, prices in the food and groceries group increased by 158.2 per cent., house rents by 1.6 per cent., prices of clothing by 252.4 per cent. and prices of miscellaneous items by 95.5 per cent. These when weighted and combined in the proportions of the " C " Series Index showed a rise of 125.1 per cent. For the Six Capital Cities as a whole the increase over the period shown was 122.9 per cent.

ALL ITEMS (" C " SERIES) RETAIL PRICE INDEX.

PERCENTAGE INCREASES SEPTEMBER QUARTER, 1939 TO DECEMBER QUARTER, 1951.

Group.	Sydney.		Melbourne.		Brisbane.		Adelaide.	
	" C " Series Index.	Group Index.	" C " Series Index.	Group Index.	" C " Series Index.	Group Index.	" C " Series Index.	Group Index.
Food and Groceries	(a) 56.8	158.2	(a) 55.1	150.4	(a) 53.6	150.9	(a) 51.4	144.9
House Rent ..	(a) 0.4	1.6	(a) 0.6	2.4	(a) 2.4	10.8	(a) 1.8	7.9
Clothing ..	(a) 50.1	252.4	(a) 49.4	250.7	(a) 51.5	243.4	(a) 51.2	244.0
Miscellaneous ..	(a) 17.8	95.5	(a) 16.4	83.7	(a) 15.8	77.4	(a) 16.0	76.7
Total ..	125.1	125.1	121.5	121.5	123.3	123.3	120.4	120.4

Group.	Perth.		Hobart.		Six State Capitals.(b)		Canberra.	
	" C " Series Index.	Group Index.	" C " Series Index.	Group Index.	" C " Series Index.	Group Index.	" C " Series Index.	Group Index.
Food and Groceries	(a) 47.4	126.0	(a) 53.1	145.9	(a) 54.7	151.2	(a) 54.4	137.5
House Rent ..	(a) 4.9	21.8	(a) 3.3	14.0	(a) 1.2	4.8	(a) 0.5	2.0
Clothing ..	(a) 52.0	256.1	(a) 50.7	245.3	(a) 50.2	250.5	(a) 50.7	258.2
Miscellaneous ..	(a) 15.7	80.5	(a) 16.5	85.5	(a) 16.8	86.7	(a) 15.5	91.9
Total ..	120.0	120.0	123.6	123.6	122.9	122.9	121.1	121.1

(a) Dissection of percentage rise in total index to show amount due to rise in each group. (b) Weighted average Six State Capitals.

The foregoing comparisons refer to two points of time (i.e., the months immediately preceding the war and the closing months of 1951, at each of which special temporary factors may have influenced relative price levels. For instance, prices of certain foods (e.g., meat) fluctuate with seasonal conditions. The percentage increases shown do not, therefore, necessarily indicate the degree of increase due solely to causes peculiar to the war and post-war period.

2. **International Comparisons.**—The following table shows the increase during this period in Australia and certain other countries. The increases during the first world war have also been included.

RETAIL PRICE INDEX-NUMBERS.

(FOOD, RENT, CLOTHING, MISCELLANEOUS HOUSEHOLD EXPENDITURE.)

(*A*): 1914–1919.

Date.	Australia.	United Kingdom.	Canada.	New Zealand.	Union of South Africa.	United States of America
	(*a*)				(*b*)	
1914 July	100	100	100	100	100(*c*)	100
1915 Year	114	125	97	108	103	102
1916 „	116	148	102	115	106	109
1917 „	123	180	130	125	114	128
1918 „	132	203	146	135	118	156
1919 „	149	208	155	145	126	175

(*a*) November. (*b*) Food, Fuel, Light and Rent. (*c*) Average for year 1914.

(*B*): 1939–1951.

Date.	Australia.	United Kingdom.	Canada.	New Zealand.	Union of South Africa.	United States of America
1939—					(*a*)	
September Quarter ..	100	100	100	100	100	100
1944—Year (*b*) ..	123	129	118	116	130	125
1945— „ (*b*) ..	123	131	119	118	133	127
1946— „ (*b*) ..	125	131	123	118	135	138
1947— „ (*b*) ..	130	(*c*) 102	134	122	141	158
1948— „ (*b*) ..	141	108	154	132	149	170
1949— „	154	111	160	(*d*) 134	154	168
1950— „	170	114	165	142	160	171
1951— „	206	124	183	157	172	185
1949—March Quarter ..	149	109	158	133	153	169
June „ ..	153	110	159	133	155	169
Sept. „ ..	156	111	161	135	154	168
Dec. „ ..	160	112	161	135	154	167
1950—March Quarter ..	163	113	161	136	157	166
June „ ..	167	114	163	140	160	168
Sept. „ ..	172	114	167	145	160	172
Dec. „ ..	179	116	169	147	164	176
1951—March Quarter ..	187	118	174	149	168	182
June „ ..	200	123	181	155	171	184
Sept. „ ..	212	127	187	161	173	185
Dec. „ ..	223	129	189	164	176	187

(*a*) Food, Rent and Miscellaneous Expenditure. (*b*) Quarterly indexes appear in preceding issues. (*c*) New series (Base: 17th June, 1947 = 100), commencing from September Quarter, 1947. (*d*) Consumers' Price Index from March Quarter, 1949, onwards. Index-numbers for earlier periods (shown for purposes of comparison) are obtained by linking the movement in the Retail Price Index (base 1926–30) with the new index.

At various stages during the first world war most of these countries introduced some measures of price control. But in the second world war they introduced price control measures at an early stage and these became more stringent as the war progressed, culminating in a policy of price stabilization.

Immediately after the outbreak of war in September, 1939, the Commonwealth Government took steps to control prices, and, by proclamations issued from day to day, pegged prices of various commodities at those ruling on 31st August, 1939. The National Security (Prices) Regulations, proclaimed on 28th September, 1939, under the authority of the National Security Act, established the basic principles of war-time price control, provided for the appointment of a Commonwealth Prices Commissioner and conferred upon him extensive powers to control the price of goods declared for that purpose by the Minister for Trade and Customs. Further reference to this control appears on page 398.

§ 6. Construction of All Items ("C" Series) Retail Price Index.

1. **The Regimen.**—The regimen from which the "C" Series Index is compiled consists of a list of commodities and services which commonly enter into the consumption of the average household, and in respect of which comparative prices can be ascertained with due precision from time to time and from place to place. (*See* § 2 (3 and 4) above). The regimen is divided into the following Groups and Sections :—

Group.	Section.
I. Food and Groceries	A.—Groceries.
	B.—Dairy Produce.
	C.—Meat.
II. Housing	D.—House Rent.
III. Clothing	E.—Clothing—Man.
	F.—Clothing—Woman.
	G.—Clothing—Boy (10½ years).
	H.—Clothing—Girl (7 years).
	J.—Clothing—Boy (3½ years).
IV. Miscellaneous	K.—Household Drapery.
	L.—Household Utensils.
	M.—Fuel and Light.
	N.—Other Miscellaneous.

The "C" Series Index includes the whole of the foregoing Groups, but for many purposes indexes are required for individual Groups or Sections. For this reason the following indexes are regularly compiled at the intervals shown, and published in various publications issued by the Bureau :—

Group.(*a*)	Content.	Frequency.
I.	Food and Groceries	Monthly
II.	Housing (4 and 5 roomed houses) (*b*)	Quarterly
I. and II.	Food, Groceries and Housing (4 and 5 rooms) ("B" Series)	Quarterly
III.	Clothing	Quarterly
IV.	Miscellaneous Household Requirements	Quarterly
I., II., III. and IV.	Food, Groceries, Housing (4 and 5 rooms), Clothing and Miscellaneous ("C" Series)	Quarterly

(*a*) "Group" or "Sectional" index-numbers in the various tables throughout this publication cannot be compared with each other in order to show the *relative cost* of Food and Groceries, Housing, Clothing or Miscellaneous requirements, since each "Group" or "Section" (or combination thereof) has its own Base = 1,000, viz., the weighted average cost for the Six Capital Cities as a whole during the five-yearly period 1923–27 for that "Group" or "Section". (*b*) *Rent.*—The rent index-numbers shown in the tables in this publication measure the proportionate rise and fall in the average weekly rentals paid for houses of four and five rooms taking corresponding houses throughout. They are "price" indexes in the strict sense, i.e., they are designed to measure only the "price" element in rent fluctuations. Similarly, "average rents" where shown are indexes of "price" changes in rentals expressed in terms of pence. They are not the average of rents actually paid by all tenants of 4 and 5-roomed houses. It would be inappropriate to include the average of rents actually paid in an index designed to measure price changes only. The average of rents actually paid is ascertained periodically by Census methods—*see also* pages 32 and 33 of *Labour Report*, No. 39.

For convenience of reference two of the indexes mentioned above have been given the "series" designation shown against them. These indexes are dealt with in turn in the following pages.

2. The Mass Units (or "Weights").—The "mass units" (or "weights") are multipliers representing the approximate average annual consumption *per head or per household* under normal conditions. The index-numbers are computed on a "total annual aggregative expenditure" basis, i.e., the total annual expenditure from time to time by a *standard population* in respect of the selected regimen of commodities and services commonly entering into household consumption, and of a constant *standard quality*. As a first step, therefore, it is necessary to multiply the price of each item by its "weight" per head or per household as the case may be. Thus, the "weight" of bread is 100 2-lb. loaves per head; of sugar 100 lb. per head; of towels 3 per household; and of housing 52 rent-weeks per household. The result of this initial calculation is designated the "P.MU" aggregate (i.e., Price x Mass Unit).

The sum of these "P.MU" results for each Section or Group is then multiplied by its appropriate population or household "weight" to produce their respective annual aggregate expenditures. Thus Sections A to C (Food and Groceries) are multiplied by the total population; Section D (Housing) by the total number of households; Sections E to J (Clothing) by the proportion of the total population applicable to each; and Sections K to N (Miscellaneous) by the total number of households.

The combination of the aggregates from the last paragraph gives the "total annual aggregate expenditure" for the whole regimen, from which the "C" Series index-number is derived by applying to 1,000 the ratio which the aggregate for any period bears to the aggregate for the base period of the Index. In the process of tabulation all prices are converted to pence for these final aggregates.

For tabulating purposes some of these "mass units" are varied when necessary to make up a deficiency or cancel out an excess in the aggregate resulting from a *change in the standard* of any item upon which prices are collected, to ensure that such changes shall not be wrongly recorded by the index as *variations* in prices. The published "mass units", however, still continue to show the correct *relative* consumption "weights" actually applicable to the commodities and services in the regimen for the *constant standards* used in the index. (*See also* § 2 (3) and 6 (3) of this chapter.)

In the case of Food and Groceries (Group I.) the "weights" adopted are approximately the annual average consumption per head for household purposes of the various articles during the years 1927 to 1929. The "weights" allotted to items in Clothing (Group III.) and Household Drapery (Section K of Group IV.) are based largely on the results of the inquiries of the Royal Commission on the Basic Wage, which reported in 1920 and 1921. After exhaustive inquiries the Commission published a "regimen" for an average working family of five persons, and set out the constituent items in its "Indicator List". This list, so far as it related to the articles in question was followed substantially in the original compilation of the "C" Series Index, and has been adjusted by subsequent investigations of the Bureau to accord with changes in popular usage. The "weights" allotted to the items were not adjusted to take account of war-time shortages or rationing, and the index therefore measured war-time price changes in relation to a normal (or pre-war) apportionment of household expenditure. (*See* § 2 (5) and § 8 (3) of this chapter.)

3. **Relative "Aggregate Expenditure" of Items and Groups.**—In the *base period* of the index (the years 1923 to 1927) the relative importance of each of the four main groups expressed as a percentage of the weighted average "aggregate expenditure" in the Six Capital Cities (from which all relative index-numbers are derived) was as shown in the third column of the following table. Although the "weights" of each item in the regimen are kept virtually constant, the relative "aggregate expenditure" of the various items and groups varies from time to time as relative prices change.

The percentage distribution for Melbourne in the *base period* was practically identical with that of the Six Capital Cities as a whole, and has continued to be representative of the relative movement of prices in the capital cities up to the present time. For this and other reasons, therefore, the percentage distribution of the Melbourne "aggregate expenditure" has been published in previous issues of this publication, and the figures for December Quarter, 1951, are shown in the fourth column of the table for comparison with those of the *base period*.

Group.	Section.	Proportion of Aggregate Expenditure.			
		1923–27 (Base). Six Capital Cities.		Dec. Qtr., 1951. Melbourne.	
		%		%	
I. Food and Groceries	A Groceries	17.44	38.66	13.82	41.36
	B Dairy Produce ..	10.28		10.66	
	C Meat	10.94		16.88	
II. Housing	D House Rent—(4 and 5 roomed houses)	21.26	21.26	11.14	11.14
III. Clothing ..	E Man	8.69	23.04	12.29	31.20
	F Woman	9.12		14.00	
	G Boy, 10½ years ..	2.89		2.35	
	H Girl, 7 years ..	1.36		1.71	
	J Boy, 3½ years ..	0.98		0.85	
IV. Miscellaneous ..	K Household Drapery	1.09	17.04	2.31	16.30
	L Household Utensils	0.49		0.68	
	M Fuel and Light ..	4.92		4.57	
	N Other Miscellaneous	10.54		8.74	
			100.00		100.00

4. **Base Periods of the Indexes.**—The base period originally adopted by the Bureau for its retail price indexes was the year 1911. When the collection of the prices of clothing and miscellaneous items was undertaken for the purposes of the "C" Series Index, the month of November, 1914, was adopted as the base period for this series. The desirability of computing retail price indexes to a new base was considered by a Conference of Statisticians in 1929, and it was resolved that from 1st January, 1930, the five years 1923–27 should be adopted as the base period, and since this date the retail price indexes

have been published on this base. The aggregate to which all index-numbers are related is the weighted "aggregate expenditure" of the regimen in the six capital cities during the period taken as base, expressed as an index-number of 1,000. Conferences of Statisticians in 1949 and 1950 left consideration of the adoption of a new base period to be made in conjunction with the next general review of the index. In the *Monthly Review of Business Statistics* the index is recomputed with the three years ended June, 1939 as base.

§ 7. Tabular Statements of Retail Price Index-Numbers.

1. **General.**—The results of inquiries into price movements are available as follows :—

(i) *Monthly.* The *Monthly Review of Business Statistics* contains annual, quarterly and monthly index-numbers to the latest available date.

(ii) *Quarterly.* A statement is issued about three weeks after the end of each quarter giving the "C" Series index-numbers for that quarter and immediately preceding quarters in respect of each of the 30 cities and towns originally adopted and for certain other towns, e.g., Canberra, for which the "C" Series index-numbers are now compiled. The *Quarterly Summary of Australian Statistics* contains annual, quarterly and monthly index-numbers to the latest available date. This publication also contains the average prices of the items of food and groceries for each month of the last available quarter, in the 30 towns covered by the investigation. Particulars of movements in certain avarage rents of 4 and 5-roomed houses in these towns are also shown therein.

(iii) *Annual.* The *Labour Report* contains index-numbers for past years, and the monthly and quarterly results for recent years. The average prices for the last year of the items of food and groceries and house rents are also published in this report. This publication contains information similar to, but in less detail than, that published in the *Labour Report.*

2. **All Items ("C" Series) Retail Price Index.**—On page 380 published a table of weighted averages for the six capital cities combined of "C" Series index-numbers, together with index-numbers for each of the four main groups of items in the "C" Series Index for each year 1914 to 1951 and quarterly for the years 1939 and 1947 to 1951.

In the pages immediately following are published :—

(i) the "C" Series index-number for the last quarter of each year 1939 and 1946 to 1951 (page 387) and for the month of November of each of the years 1914 to 1920 (page 388), for each capital city and for the six capital cities combined, and showing also separate indexes for each of the four main groups of items ; and

(ii) the "C" Series index-number for November, 1914, 1921 and the years 1929, 1939 and 1946 to 1951 (page 389) for each of the 30 towns with the weighted averages for each State, the six capital cities and 30 towns, together with index-numbers for the same periods for four additional towns for which this index is tabulated.

ALL ITEMS ("C" SERIES) RETAIL PRICE INDEX-NUMBERS(a): CAPITAL CITIES.

(*Base of each Group: Weighted average of Six Capital Cities*, 1923–27 = 1,000.)

Period.	Sydney.	Melbourne.	Brisbane.	Adelaide.	Perth.	Hobart.	Six Capitals. (b)
GROUP I.—FOOD AND GROCERIES.							
Dec. Qtr. 1939 ..	940	942	859	888	926	941	927
,, ,, 1946 ..	1,047	1,044	996	996	1,052	1,084	1,037
,, ,, 1947 ..	1,138	1,160	1,092	1,112	1,132	1,180	1,138
,, ,, 1948 ..	1,326	1,355	1,280	1,305	1,324	1,416	1,330
,, ,, 1949 ..	1,421	1,451	1,367	1,398	1,488	1,514	1,429
,, ,, 1950 ..	1,713	1,724	1,551	1,606	1,707	1,665	1,689
,, ,, 1951 ..	2,401	2,334	2,145	2,175	2,133	2,252	2,311
GROUP II.—HOUSING (4 AND 5 ROOMED HOUSES).(c)							
Dec. Qtr. 1939 ..	1,040	960	855	891	882	930	969
,, ,, 1946 ..	1,043	973	863	895	886	936	976
,, ,, 1947 ..	1,045	974	864	899	887	936	977
,, ,, 1948 ..	1,047	974	866	905	890	938	980
,, ,, 1949 ..	1,049	977	873	914	897	941	983
,, ,, 1950 ..	1,050	979	898	937	904	941	989
,, ,, 1951 ..	1,056	980	947	960	1,073	1,057	1,013
GROUPS I. AND II.—FOOD, GROCERIES AND HOUSING ("B" SERIES) INDEX.							
Dec. Qtr. 1939 ..	977	947	855	887	907	935	941
,, ,, 1946 ..	1,043	1,014	942	955	985	1,024	1,011
,, ,, 1947 ..	1,099	1,084	1,001	1,026	1,034	1,082	1,073
,, ,, 1948 ..	1,214	1,203	1,116	1,146	1,152	1,226	1,190
,, ,, 1949 ..	1,273	1,263	1,171	1,206	1,254	1,287	1,252
,, ,, 1950 ..	1,451	1,429	1,293	1,341	1,390	1,379	1,412
,, ,, 1951 ..	1,871	1,801	1,673	1,696	1,715	1,781	1,800
GROUP III.—CLOTHING.							
Dec. Qtr. 1939 ..	854	862	865	869	840	867	858
,, ,, 1946 ..	1,555	1,551	1,552	1,529	1,548	1,558	1,550
,, ,, 1947 ..	1,639	1,649	1,619	1,618	1,647	1,653	1,639
,, ,, 1948 ..	1,831	1,801	1,817	1,809	1,835	1,807	1,818
,, ,, 1949 ..	2,161	2,117	2,072	2,113	2,155	2,129	2,132
,, ,, 1950 ..	2,447	2,389	2,355	2,390	2,408	2,401	2,410
,, ,, 1951 ..	2,964	2,886	2,864	2,962	2,977	2,942	2,930
GROUP IV.—MISCELLANEOUS.							
Dec. Qtr. 1939 ..	943	983	960	1,027	957	945	967
,, ,, 1946 ..	1,175	1,165	1,141	1,222	1,147	1,110	1,170
,, ,, 1947 ..	1,245	1,201	1,157	1,266	1,160	1,140	1,217
,, ,, 1948 ..	1,279	1,273	1,249	1,350	1,242	1,191	1,277
,, ,, 1949 ..	1,389	1,307	1,316	1,410	1,305	1,234	1,378
,, ,, 1950 ..	1,527	1,482	1,418	1,555	1,374	1,383	1,402
,, ,, 1951 ..	1,836	1,789	1,694	1,802	1,720	1,744	1,794
GROUPS I. TO IV.—ALL ITEMS ("C" SERIES) INDEX.							
Dec. Qtr. 1939 ..	943	932	874	906	899	919	926
,, ,, 1946 ..	1,177	1,157	1,110	1,128	1,136	1,155	1,156
,, ,, 1947 ..	1,242	1,227	1,163	1,198	1,189	1,210	1,221
,, ,, 1948 ..	1,359	1,345	1,291	1,327	1,316	1,344	1,341
,, ,, 1949 ..	1,486	1,472	1,393	1,440	1,459	1,459	1,466
,, ,, 1950 ..	1,680	1,646	1,546	1,608	1,607	1,601	1,643
,, ,, 1951 ..	2,100	2,033	1,934	1,990	1,989	2,024	2,042

(a) *See* footnote (a) on page 383. (b) Weighted average. (c) *See* footnote (b) on page 383.

ALL ITEMS (" C " SERIES) RETAIL PRICE INDEX-NUMBERS(*a*) : CAPITAL CITIES.

(*Base of each Group : Weighted Average of Six Capital Cities,* 1923–27 = 1,000.)

Period.	Sydney.	Melbourne.	Brisbane.	Adelaide.	Perth.	Hobart.	Six Capitals. (*b*)
GROUP I.—FOOD AND GROCERIES.							
Nov. 1914 ..	638	616	614	683	746	687	641
" 1915 ..	844	835	860	858	819	858	842
" 1916 ..	833	791	748	835	854	807	812
" 1917 ..	877	798	825	805	828	949	836
" 1918 ..	877	843	882	862	816	918	861
" 1919 ..	1,073	975	1,069	1,012	987	1,041	1,026
" 1920 ..	1,225	1,220	1,117	1,225	1,113	1,293	1,209
GROUP II.—HOUSING (4 AND 5 ROOMED HOUSES). (*c*)							
Nov. 1914 ..	758	608	463	611	586	525	649
" 1915 ..	780	611	472	574	581	571	659
" 1916 ..	791	625	467	573	592	574	665
" 1917 ..	797	657	492	606	602	586	685
" 1918 ..	832	699	526	656	619	614	722
" 1919 ..	866	744	604	707	650	746	768
" 1920 ..	980	807	634	783	718	904	851
GROUPS I. AND II.—FOOD, GROCERIES AND HOUSING (" B " SERIES) INDEX.							
Nov. 1914 ..	680	613	560	658	689	630	644
" 1915 ..	825	756	722	758	734	756	777
" 1916 ..	818	732	648	742	761	724	760
" 1917 ..	848	748	707	734	748	820	782
" 1918 ..	861	792	756	789	746	810	812
" 1919 ..	1,000	893	904	904	867	936	934
" 1920 ..	1,138	1,074	945	1,068	973	1,155	1,082
GROUP III.—CLOTHING.							
Nov. 1914 ..	755	780	657	756	698	825	754
" 1915 ..	805	797	690	821	760	833	792
" 1916 ..	903	870	779	919	849	940	881
" 1917 ..	1,009	976	899	1,049	980	1,041	992
" 1918 ..	1,102	1,103	1,025	1,066	1,135	1,200	1,097
" 1919 ..	1,237	1,213	1,192	1,303	1,277	1,344	1,238
" 1920 ..	1.323	1,422	1,274	1.384	1,359	1,430	1,365
GROUP IV.—MISCELLANEOUS.							
Nov. 1914 ..	766	728	728	770	780	699	749
" 1915 ..	798	770	756	803	822	770	786
" 1916 ..	808	784	766	832	869	780	802
" 1917 ..	889	879	836	883	926	865	882
" 1918 ..	988	950	931	988	1,035	945	972
" 1919 ..	1,059	1,016	968	1,035	1,120	1,006	1,036
" 1920 ..	1,209	1,181	1,139	1,200	1,262	1,124	1,194
GROUPS I. TO IV.—ALL ITEMS (" C " SERIES) INDEX.							
Nov. 1914 ..	712	671	611	699	707	687	687
" 1915 ..	816	768	721	780	755	776	782
" 1916 ..	836	773	698	798	800	783	795
" 1917 ..	892	823	773	832	832	879	847
" 1918 ..	938	890	848	887	885	923	905
" 1919 ..	1,065	988	981	1,018	1,005	1,042	1,022
" 1920 ..	1,193	1,172	1,054	1,164	1,111	1,213	1,166

(*a*) *See* footnote (*a*) on page 383. (*b*) Weighted average. *See* page 380 for corresponding figures for years 1921 to 1951. (*c*) *See* footnote (*b*) on page 383.

ALL ITEMS ("C" SERIES) RETAIL PRICE INDEX-NUMBERS: THIRTY TOWNS.

(*Base: Weighted Average of Six Capital Cities,* 1923–27 = 1,000.)

State and Town.	Nov. 1914.	Nov. 1921.	Year 1929.	Year 1939.	Year 1946.	Year 1947.	Year 1948.	Year 1949.	Year 1950.	Year 1951.
NEW SOUTH WALES—										
Sydney	712	1,046	1,073	936	1,165	1,212	1,318	1,439	1,593	1,933
Newcastle	..	1,041	1,028	901	1,119	1,167	1,279	1,402	1,543	1,901
Broken Hill	..	975	1,018	955	1,216	1,257	1,376	1,528	1,692	1,997
Goulburn	..	1,033	1,108	916	1,134	1,177	1,291	1,426	1,578	1,921
Bathurst	..	947	979	883	1,116	1,162	1,277	1,403	1,552	1,882
FIVE TOWNS (*a*) ..	..	1,042	1,067	933	1,162	1,208	1,315	1,437	1,591	1,931
VICTORIA—										
Melbourne	671	1,003	1,017	924	1,149	1,188	1,294	1,415	1,565	1,880
Ballarat	..	992	957	874	1,094	1,132	1,243	1,365	1,509	1,857
Bendigo	..	1,002	969	875	1,107	1,141	1,244	1,365	1,520	1,826
Geelong	..	1,019	980	911	1,124	1,170	1,278	1,397	1,549	1,871
Warrnambool	..	1,034	960	918	1,153	1,186	1,283	1,398	1,558	1,886
FIVE TOWNS (*a*) ..	..	1,003	1,011	920	1,145	1,184	1,290	1,411	1,561	1,877
QUEENSLAND—										
Brisbane	611	923	923	870	1,093	1,137	1,241	1,348	1,472	1,760
Toowoomba	..	949	916	858	1,107	1,152	1,246	1,360	1,486	1,773
Rockhampton	..	972	904	867	1,096	1,140	1,241	1,357	1,491	1,785
Townsville	..	1,025*b*	939*b*	918	1,136	1,181	1,282	1,404	1,525	1,818
Bundaberg	..	994*c*	931*c*	847	1,074	1,115	1,221	1,335	1,464	1,754
FIVE TOWNS (*a*) ..	..	941	922	871	1,097	1,140	1,244	1,352	1,478	1,767
SOUTH AUSTRALIA—										
Adelaide	699	989	1,037	906	1,120	1,165	1,277	1,393	1,521	1,833
Kadina, etc.	..	998	943	810	1,020	1,067	1,166	1,295	1,423	1,742
Port Pirie	..	1,025	980	896	1,106	1,152	1,260	1,369	1,500	1,811
Mount Gambier ..	..	1,029	963	872	1,093	1,134	1,235	1,340	1,499	1,863
Peterborough	..	948	1,043	897	1,108	1,152	1,253	1,368	1,496	1,808
FIVE TOWNS (*a*) ..	..	992	1,030	902	1,116	1,160	1,272	1,388	1,516	1,829
WESTERN AUSTRALIA—										
Perth, etc.	707	1,008	1,026	901	1,127	1,161	1,264	1,410	1,538	1,860
Kalgoorlie, etc.	..	1,048	1,032	1,066	1,223	1,265	1,368	1,502	1,636	1,940
Northam	..	1,030*d*	1,022	915	1,133	1,171	1,272	1,420	1,550	1,870
Bunbury	..	1,045	978	936	1,136	1,173	1,277	1,424	1,559	1,870
Geraldton	..	1,056	1,051	965	1,187	1,221	1,327	1,475	1,611	1,956
FIVE TOWNS (*a*) ..	..	1,020	1,026	915	1,136	1,170	1,273	1,418	1,547	1,868
TASMANIA—										
Hobart	687	1,070	1,000	908	1,138	1,178	1,292	1,419	1,526	1,861
Launceston	..	1,067	967	888	1,099	1,147	1,254	1,389	1,493	1,857
Burnie	..	1,003*e*	966	879	1,093	1,132	1,232	1,367	1,484	1,810
Devonport	..	904*f*	948	861	1,079	1,119	1,220	1,351	1,481	1,793
Queenstown	..	1,031	972	903	1,139	1,179	1,280	1,400	1,494	1,808
FIVE TOWNS (*a*) ..	..	1,057	986	898	1,121	1,164	1,274	1,404	1,511	1,852
THIRTY TOWNS (*a*) ..	..	1,013	1,026	917	1,142	1,185	1,292	1,413	1,556	1,880
SIX CAPITALS (*a*)	687	1,013	1,033	920	1,145	1,188	1,295	1,415	1,560	1,883
Warwick (Q.) (*g*)	..	994	931	834	1,087	1,138	1,234	1,349	1,461	1,751
Port Augusta (S.A.) (*g*) ..	..	1,035	1,061	883	1,105	1,157	1,267	1,373	1,512	1,823
Whyalla (S.A.) (*g*) ..	..	..	..	..	..	1,175	1,277	1,379	1,515	1,848
Canberra (A.C.T.) (*g*) ..	..	..	..	956	1,170	1,210	1,327	1,456	1,600	1,931

(*a*) Weighted average. (*b*) Charters Towers. (*c*) Warwick. (*d*) Midland Junction. (*e*) Zeehan. (*f*) Beaconsfield. (*g*) Not included in weighted averages above.

3. **"B" Series Retail Price Index: Food, Groceries and Rent.**—This index measures the prices of food and groceries and the rent of 4 and 5-roomed houses. It was first compiled for the year 1925, and retrospectively for several earlier years. It was designed to replace the "A" Series Index (food, groceries and rent of all houses), which was the original index compiled in 1912. The first of the two tables following is split up into the various sections of the regimen, and covers only the six capital cities,

while the second represents the whole regimen and covers the 30 Towns included in the tabulation of the " B " Series Index, with the weighted averages for the 5 towns in each State, the Six Capital Cities and the 30 Towns.

RETAIL PRICE INDEX-NUMBERS(*a*): CAPITAL CITIES—" B " SERIES.

(*Base of each Section : Weighted Average of Six Capital Cities*, 1923–27 = 1,000.)

Town.	1907.	1911.	1914.	1921.	1939.	1947.	1948.	1949.	1950.	1951.
SECTION A.—GROCERIES.										
Sydney	510	574	627	1,115	994	1,026	1,167	1,298	1,411	1,806
Melbourne	461	521	562	1,070	957	991	1,153	1,296	1,416	1,739
Brisbane	547	614	607	1,105	944	994	1,165	1,305	1,387	1,722
Adelaide	510	541	598	1,076	939	995	1,144	1,263	1,374	1,724
Perth	572	720	628	1,103	966	1,032	1,183	1,268	1,380	1,650
Hobart	501	566	604	1,087	947	991	1,143	1,272	1,390	1,749
Six Capitals (*b*)	499	564	599	1,093	969	1,008	1,161	1,292	1,404	1,757
SECTION B.—DAIRY PRODUCE.										
Sydney	551	574	656	1,080	851	977	1,165	1,306	1,439	1,723
Melbourne	571	567	635	1,087	885	998	1,189	1,330	1,441	1,715
Brisbane	495	581	588	983	793	955	1,115	1,233	1,312	1,530
Adelaide	548	651	705	1,018	800	928	1,136	1,258	1,353	1,611
Perth	709	733	735	1,152	870	1,000	1,166	1,292	1,436	1,705
Hobart	564	587	695	1,091	844	989	1,181	1,319	1,410	1,658
Six Capitals (*b*)	563	591	654	1,072	853	978	1,165	1,301	1,418	1,688
SECTION C.—MEAT.										
Sydney	519	501	668	960	935	1,343	1,456	1,571	1,899	2,836
Melbourne	557	485	663	1,030	968	1,365	1,502	1,649	2,000	2,896
Brisbane	535	488	610	897	822	1,223	1,343	1,453	1,695	2,231
Adelaide	553	541	784	1,095	929	1,288	1,423	1,543	1,776	2,503
Perth	789	824	881	1,103	958	1,290	1,411	1,785	2,025	2,608
Hobart	668	638	780	1,244	961	1,446	1,662	1,945	1,962	2,624
Six Capitals (*b*)	558	522	691	1,010	936	1,332	1,458	1,603	1,909	2,744
SECTIONS A, B AND C COMBINED.—FOOD AND GROCERIES.										
Sydney	523	553	646	1,062	936	1,110	1,258	1,388	1,572	2,099
Melbourne	517	523	610	1,063	942	1,110	1,274	1,418	1,605	2,088
Brisbane	530	569	603	1,014	864	1,055	1,208	1,332	1,462	1,823
Adelaide	532	570	679	1,066	897	1,067	1,230	1,351	1,494	1,931
Perth	670	753	728	1,166	938	1,104	1,251	1,437	1,597	1,963
Hobart	565	592	678	1,133	923	1,132	1,316	1,495	1,574	1,992
Six Capitals (*b*)	533	559	640	1,064	927	1,100	1,256	1,394	1,566	2,041
SECTION D.—HOUSING (4 AND 5 ROOMED HOUSES).(*c*)										
Sydney	593	701	760	989	1,035	1,044	1,047	1,049	1,050	1,053
Melbourne	455	569	628	820	955	974	974	976	979	980
Brisbane	283	373	466	630	854	864	866	869	883	934
Adelaide	510	706	655	809	888	897	903	912	929	949
Perth	458	524	589	739	881	887	889	895	901	1,065
Hobart	405	452	518	881	925	936	937	940	941	1,048
Six Capitals (*b*)	497	612	662	862	965	977	979	982	987	1,009
ALL SECTIONS COMBINED.—FOOD, GROCERIES AND HOUSING (" B " SERIES INDEX).										
Sydney	548	606	687	1,036	972	1,082	1,173	1,252	1,365	1,686
Melbourne	495	539	616	977	945	1,054	1,154	1,243	1,357	1,652
Brisbane	442	500	554	877	858	978	1,072	1,149	1,233	1,472
Adelaide	524	618	671	975	891	998	1,100	1,177	1,270	1,544
Perth	594	672	679	982	914	1,017	1,107	1,222	1,322	1,608
Hobart	508	542	621	1,044	922	1,053	1,165	1,275	1,324	1,620
Six Capitals (*b*)	520	578	648	992	939	1,050	1,145	1,230	1,336	1,634

(*a*) *See* footnote (*a*) on page 383. (*b*) Weighted average. (*c*) *See* footnote (*b*) on page 383.

RETAIL PRICE INDEX-NUMBERS: THIRTY TOWNS—"B" SERIES.

FOOD, GROCERIES AND RENT.

(*Base: Weighted Average of Six Capital Cities*, 1923–27 = 1,000.)

State and Town.	Nov. 1914.	Nov. 1921.	1929.	1939.	1946.	1947.	1948.	1949.	1950.	1951.
NEW SOUTH WALES—										
Sydney	680	977	1,115	972	1,038	1,082	1,173	1,252	1,365	1,686
Newcastle	..	944	1,068	934	990	1,035	1,129	1,205	1,309	1,672
Broken Hill	..	825	1,078	970	1,073	1,110	1,206	1,333	1,459	1,715
Goulburn	..	926	1,146	942	996	1,030	1,130	1,225	1,341	1,682
Bathurst	..	815	987	900	966	1,006	1,102	1,190	1,313	1,619
FIVE TOWNS (*a*) ..	..	965	1,110	969	1,034	1,078	1,169	1,249	1,362	1,685
VICTORIA—										
Melbourne	613	895	1,036	945	1,019	1,054	1,154	1,243	1,357	1,652
Ballarat	..	769	914	849	917	950	1,052	1,141	1,254	1,593
Bendigo	..	780	962	851	928	952	1,048	1,140	1,267	1,543
Geelong	..	844	985	917	961	1,012	1,116	1,204	1,318	1,633
Warrnambool	..	855	940	940	1,020	1,042	1,134	1,212	1,342	1,657
FIVE TOWNS (*a*) ..	..	876	1,026	938	1,011	1,046	1,146	1,235	1,350	1,646
QUEENSLAND—										
Brisbane	560	840	912	858	932	978	1,072	1,149	1,233	1,472
Toowoomba	..	771	855	830	955	1,001	1,087	1,170	1,252	1,498
Rockhampton	..	779	877	843	919	971	1,063	1,145	1,247	1,493
Townsville	..	820*b*	975*b*	920	989	1,036	1,125	1,214	1,286	1,525
Bundaberg	..	794*c*	867*c*	804	897	942	1,030	1,110	1,195	1,427
FIVE TOWNS (*a*) ..	..	824	906	858	936	982	1,074	1,153	1,238	1,478
SOUTH AUSTRALIA—										
Adelaide	658	898	1,030	891	960	998	1,100	1,177	1,270	1,544
Kadina, etc.	..	811	891	743	790	825	907	1,001	1,089	1,390
Port Pirie	..	839	963	882	933	971	1,063	1,141	1,241	1,522
Mount Gambier ..	..	770	866	838	903	931	1,022	1,091	1,232	1,576
Peterborough	..	844	1,042	890	936	973	1,067	1,144	1,224	1,504
FIVE TOWNS (*a*) ..	..	885	1,020	885	952	990	1,091	1,168	1,262	1,538
WESTERN AUSTRALIA—										
Perth, etc.	689	916	1,038	914	989	1,017	1,107	1,222	1,322	1,608
Kalgoorlie, etc.	..	928	1,010	1,178	1,136	1,174	1,266	1,382	1,489	1,739
Northam	..	898*d*	1,072	936	1,003	1,034	1,131	1,257	1,358	1,673
Bunbury	..	907	996	979	1,024	1,056	1,148	1,269	1,380	1,679
Geraldton	..	942	1,090	990	1,073	1,103	1,193	1,315	1,421	1,746
FIVE TOWNS (*a*) ..	..	918	1,036	936	1,003	1,031	1,122	1,237	1,338	1,623
TASMANIA—										
Hobart	630	971	992	922	1,014	1,053	1,165	1,275	1,324	1,620
Launceston	..	858	937	887	956	1,001	1,113	1,227	1,274	1,634
Burnie	..	819*e*	972	898	969	1,006	1,108	1,225	1,295	1,600
Devonport	..	696*f*	930	865	939	976	1,078	1,197	1,283	1,571
Queenstown	..	871	920	933	1,028	1,067	1,173	1,267	1,299	1,586
FIVE TOWNS (*a*) ..	..	911	970	908	992	1,032	1,143	1,254	1,304	1,620
THIRTY TOWNS (*a*) ..	..	907	1,044	935	1,005	1,045	1,140	1,226	1,332	1,630
SIX CAPITALS (*a*)	644	924	1,054	939	1,010	1,050	1,145	1,230	1,336	1,634
Warwick (Q.) (*g*)	..	794	867	783	904	956	1,039	1,124	1,203	1,448
Port Augusta (S.A.) (*g*) ..	..	861	1,047	864	929	968	1,063	1,144	1,260	1,541
Whyalla (S.A.) (*g*) ..	..	..	..	..	..	1,013	1,103	1,176	1,284	1,596
Canberra (A.C.T.) (*g*) ..	..	..	..	1,026	1,062	1,096	1,191	1,280	1,381	1,701

(*a*) Weighted average. (*b*) Charters Towers. (*c*) Warwick. (*d*) Midland Junction. (*e*) Zeehan. (*f*) Beaconsfield. (*g*) Not included in weighted averages above.

§ 8. Changes in the Regimen.

1. **General.**—Since the original compilation of retail price indexes by the Bureau in 1912, the regimens of the several groups and sections have undergone some modifications. These are fully described in *Labour Report* No. 39 for 1950, pp. 32–35. These changes are made from time to time with a view to improving the index-numbers as measures of price variations. They comprise chiefly the elimination or replacement of articles no longer in demand, or which experience had shown to be unsuitable media for the measurement of price variations; the alteration of units of quantity in certain cases to conform with those most in general use; the adjustment of the mass unit allotted to certain articles to bring them into accord with present-day consumption habits; the

re-adjustment of the population and household weights applicable to the several groups and sections of the regimen in accordance with general Census results; and improved methods of collecting and weighting average house rentals.

2. **Method of Effecting Changes.**—Changes of the nature mentioned are commonly made in price indexes without seriously impairing their continuity. In accordance with established principles of procedure in changing the regimen (see *Labour Report* No. 9, Appendix I., Part II., paragraphs 14 and 18), the general level of the index is taken as determined by the old regimen for the quarter in which the change is made, and the new regimen is used to measure variations in the price-level after that date. The linking up of the index-numbers on the old and the new basis is effected by the usual method of equating the respective weighted aggregate costs of the old and the new regimens in the six capital cities.

There are two methods of effecting this, as follows :—Up to June Quarter, 1942, all such changes were made by equating the new aggregate of the section embodying the changes to the former aggregate. This course was adopted when items were added to or omitted from the regimen, and when a change was made in the standard of any item. From September Quarter, 1942, however, all changes of standard were effected mainly by an appropriate adjustment of the "mass unit" or "weight" so as to preserve the percentage weight which the item carried in the aggregate from time to time and, wherever possible, the "weight" of any item dropped from the regimen was transferred to an article of a similar nature which would serve as a more appropriate medium for the measurement of the variations in the price of the article dropped than the remaining items of the section. The "mass units" of the remaining items under the former procedure were in effect proportionately increased to carry the aggregate of the item dropped, or reduced to admit a new item added. (*See also* par. 2 on page 384.)

While the foregoing involves no break of continuity in the index-numbers for the six capital cities as a whole, upon the basis of which all such changes are effected, slight alterations of the relative positions of individual towns are inevitable on account of the alteration of former standards. The effect, however, is more noticeable in the group index-numbers than in those covering a combination of groups, wherein the losses and gains tend to balance out.

3. **The Regimen under War Conditions.**—Although war conditions produced some variations from normal consumption in 1940 and 1941 it was not until 1942 (*see also* § 2 (5) of this chapter) that fundamental changes began to occur. As there explained, the years 1942, 1943 and 1944 produced temporary changes of a far-reaching character which, if permanent and stable, must have necessitated fundamental re-adjustments in the regimen and mass units of the index. But the resultant changes in the index would have been so extensive as virtually to create a new index which would not have been continuously comparable with the "C" Series Index as compiled either pre-war or post-war. Consideration of the matter led to the conclusions—

- (i) that it was desirable to continue the "C" Series Index substantially on its pre-war regimen in order to ensure continuity of comparison of price movements on a clearly defined basis;
- (ii) that it was impossible to reconstruct the "C" Series Index to take account of recurrent temporary departures from normal consumption.

4. **The Regimen since 1945.**—The "C" Series Index was reviewed at the Conferences of Commonwealth and State Statisticians in 1949 and 1950. The resolutions of the 1949 Conference were reprinted on page 157 of *Labour Report* No. 38, while those of the 1950 Conference were reprinted on page 161 of *Labour Report* No. 39.

§ 9. Retail Price Indexes and Basic Wage Variations.

Two distinct procedures are adopted by the Commonwealth Court of Conciliation and Arbitration in fixing and varying basic or living wages as follows :—

- (i) The Court periodically *fixes* the amount of wage in the light of evidence submitted by parties appearing before it. Such evidence usually covers a wide range of facts as to economic conditions.

(ii) Having determined the amount of basic wage the Court further determines whether or not it shall be subject to automatic adjustment for changes in price level and, if so, by what method such *variation* shall be made. This again is decided in the light of evidence and of representations by the parties concerned

The "C" Series Index is used by the Court to derive the "Court" series of retail price index-numbers upon which the basic* portion of the wages prescribed in awards is varied automatically for changes in price levels quarterly, half-yearly or yearly. These are commonly referred to as "cost of living adjustments" although in fact they relate only to that part of the *change in cost of living* which is due to variations in prices. The Court itself determines from time to time at public sittings the amount of the basic wage, having regard to evidence submitted in relation to other aspects of "cost of living" and other relevant considerations. In fixing the amount of the basic wage the Court does not have regard to either the regimen used in compiling the retail price index or the cost of such regimen. The regimen of the index would not be suited to such a purpose.

The considerations upon which the basic wage is fixed are set out in successive judgments of the Court and briefly summarized in Chapter III. (§ 4) of the *Labour Report*. On this matter, reference should be made to the Basic Wage Judgments of the Court, particularly those of 1934, 1937, 1941 and 1950, and to the general statement of principles set out in the judgment on the "Munition Workers' Case" of 1943. Certain State industrial tribunals use the index-numbers directly for automatic or quasi-automatic adjustments of the rates of wages determined by them as tribunals, while some State tribunals have regard to the index-numbers and other factors in considering what "cost of living" variations they should make in rates of wages.

The use of indexes by industrial authorities for purposes of adjusting rates of wages for changes in price level is a practice of long standing, dating in the case of the Commonwealth Court of Conciliation and Arbitration, for example, back to the year 1913. The tribunals form their own judgment as to relevance of the indexes to their purposes, and periodically hear the representatives of employers and employees on the issues involved, including questions as to whether the index is satisfactory for the purposes to which it is applied by the tribunal. In such proceedings the Statistician or his officers are called at times as witnesses on questions of fact and technical matters relating to the indexes.

The automatic adjustments in wages prescribed in awards of the Court on the basis of retail price index-numbers are sometimes referred to as "cost of living" adjustments and the index is popularly referred to as a "cost of living index". This at times creates misconceptions as to the nature of the retail price index since the term "cost of living" connotes not only change in cost of living due to changes in prices, but also changes in cost of living due to changes in standard of living. Beyond that, use of the term "cost of living" index sometimes creates the erroneous impression that the retail price index purports to embrace all that should be included in a desirable standard of living. As pointed out in paragraph 4, page 377, of this chapter, the "C" Series Index is a retail price index of specific meaning. As there indicated the regimen or list of items, on which the index is based, is representative of a high proportion of the expenditure of wage-earner households. While this statement remains broadly true, it relates (in the circumstances of 1951) more specifically to what may be termed the basic wage portion of wage-earner expenditures. The index has hitherto been used by industrial tribunals to provide automatic adjustments in the basic wage itself and, until December, 1950, to a basic wage which did not vary very much in real terms of purchasing power in relation to "C" Series units. In 1950 and especially in 1951 various factors produced both a steep rise in prices and an increasingly wide dispersion of price movements as affecting consumer expenditures on items within and without the index. There has been arising concurrently a tendency to assume, without inquiry, that the index (constructed primarily to measure the incidence of price changes on expenditures from incomes at or about basic wage level) is equally applicable to such diverse matters as measuring the changing incidence of price variations on secondary or marginal portions of wages, on total wages or on total incomes in groups considerably higher than the basic wage, and even on money settlements in some business transactions. While such assumptions may be reasonably reliable during periods in which all prices tend to move together, they should not be made at any time without due inquiry and particularly not in periods (such as the present) when price movements are very marked and are subject to wide dispersion.

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* The "needs" portion only was adjustable from July, 1937, to December, 1950.

Reference should be made to *Labour Report* No. 39 for the actual Automatic Adjustment Scales used for the adjustment of the Commonwealth basic wage.*

B. WHOLESALE PRICES AND PRICE INDEXES.

§ 1. General.

Two indexes of wholesale prices have been compiled by the Bureau. These are :—

(i) The Melbourne Wholesale Price Index ;

(ii) The Wholesale Price (Basic Materials and Foodstuffs) Index.

Particulars of the Melbourne Wholesale Price Index, which is now obsolescent, are given in § 3 commencing on page 397 of this chapter.

After reviewing the regimen and weighting of this index the 1930 Conference of Statisticians resolved that a new index of wholesale prices of basic materials and foodstuffs should be compiled. This index—the Wholesale Price (Basic Materials and Foodstuffs) Index—which extends back to the year 1928 and is compiled monthly, is a special purpose index and one of a series of Wholesale Price Indexes designed for special purposes.

§ 2. Wholesale Price (Basic Materials and Foodstuffs) Index.

1. **Price Quotations.**—The prices used in the index have in the main been obtained directly from manufacturers and merchants, and, with a few important exceptions, from Melbourne sources. Apart from locally produced building materials and one or two minor commodities, however, the price movements may be taken as representative of variations in wholesale prices of basic materials in most Australian markets.

Commodities in the index are priced in their primary or basic form wherever possible and in respect of imported materials as nearly as may be at the point where they first make effective impact on the local price structure. Thus the price of imported goods is not taken at the time of import, but rather on an ex-bond (or into factory) basis.

Broadly, where home-consumption prices exist for local products, they have been used in this index. During the year 1950–51 wool for local manufacture was subsidized. Whilst the home-consumption price for wool was used to calculate the index-numbers shown in the body of the table (*see* paragraph 4), footnotes to the table show the index calculated on the basis of open market prices for wool (*see* paragraph 5).

2. **Commodities and Grouping.**—For purposes of this index "basic" materials (as opposed to certain of the Foodstuffs) are commodities in the primary or basic forms in which they first enter into productive processes carried out in Australia. The regimen comprises 80 commodities, divided into seven main groups. Each group is sub-divided into goods which are mainly imported, and goods which are mainly home-produced. A full list of these commodities is set out below, showing the quantity-multipliers (weights) for each commodity, and the percentage of the total aggregate value in 1950 contributed by each commodity and group.

3. **Method of Construction.**—The index is constructed on the simple aggregative fixed-weights formula. The weights (quantity-multipliers) are based on estimates of the average annual consumption of the commodities in Australia during the period 1928–29 to 1934–35 inclusive. Changes in usage, changes of category as between "imported" and "home-produced" as affecting some commodities, and changes in the industrial structure have affected the validity of some of the weights in the index. These and other problems (e.g. dual prices for some commodities) are being examined with a view to revision of the regimen, its grouping and weighting, when conditions are more stable.

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* *See* footnote on p. 393.

WHOLESALE PRICE (BASIC MATERIALS AND FOODSTUFFS) INDEX.

Commodities in Regimen, Units of Measurement, Quantity-multipliers, and Percentage Value-weight in 1950.

Commodity.	Unit.	Quantity-multiplier (Weight).	Percentage Value-weight 1950.
METALS AND COAL.			
Principally Imported—			
Aluminium	ton	985	0.05
Principally Home-produced—			
Iron and Steel	ton	637,000	3.19
Briquettes	ton	243,000	0.14
Copper, wire bars	ton	7,000	0.38
Coal	ton	9,300,000	11.21
Lead, soft, pig	ton	10,400	0.13
Tin, ingots	ton	1,250	0.26
Zinc, ingots	ton	14,800	0.20
Total	..	..	15.56
OILS, FATS AND WAXES.			
Principally Imported—			
Coconut Oil	ton	6,500	0.22
Fuel Oil	ton	170,000	0.70
Linseed Oil	gal.	2,250,000	0.68
Lubricating Oil	gal.	3,960,000	0.35
Kerosene, power	gal.	21,000,000	0.50
Petrol—			
1st grade	gal.	78,000,000	3.02
2nd grade	gal.	140,000,000	5.43
Principally Home-produced—			
Beeswax	lb.	169,112	0.01
Tallow	ton	26,000	0.23
Total	..	..	11.14
TEXTILES.			
Principally Imported—			
Hemp	ton	5,575	0.45
Kapok	lb.	6,160,000	0.39
Jute Fibre	ton	874	0.04
Phormium Tenax	ton	2,275	0.02
Silk, raw	lb.	455,900	0.20
Principally Home-produced—			
Cotton, raw	lb.	15,900,000	0.61
Wool, greasy	lb.	50,200,000	4.50
Total	..	..	6.21
CHEMICALS.			
Principally Imported—			
Ammonium Sulphate	ton	23,830	0.16
Potash—			
Muriate	ton	4,055	0.04
Sulphate	ton	2,025	0.02
Soda—			
Ash	ton	21,400	0.13
Nitrate	ton	1,100	0.01
Nitrate-chilean	ton	3,600	0.03
Sulphur	ton	95,500	0.79
Principally Home-produced—			
Arsenic	ton	1,531	0.03
Blood and Bone	ton	34,431	0.11
Methylated Spirits	gal.	2,374,000	0.09
Soda Crystals	ton	4,986	0.02
Superphosphate	ton	704,144	1.65
Sulphuric Acid	ton	226,450	0.87
Total	..	..	3.95
RUBBER AND HIDES.			
Principally Imported—			
Rubber, crude	lb.	24,214,400	1.17
Principally Home-produced—			
Calf Skins	lb.	4,455,000	0.06
Cattle Hides	lb.	57,246,000	0.48
Tanning Bark	ton	23,000	0.14
Total	..	..	1.85
BUILDING MATERIALS.			
Principally Imported—			
Timber, softwoods	1,000 sup. ft.	346,500	5.00
Turpentine	gal.	458,000	0.07
Principally Home-produced—			
Bricks	1,000	372,000	0.82
Cement	ton	479,000	0.80
Drain-pipes	ft.	7,270,000	0.28
Glass, window	100 sq. ft.	82,370	0.06
Lime	ton	51,144	0.07
Plaster	ton	53,000	0.18
Timber, hardwoods	100 sup. ft.	2,575,000	1.93
White Lead	cwt.	60,000	0.09
Whiting	cwt.	274,000	0.08
Total	..	..	9.38
FOODSTUFFS AND TOBACCO.			
Principally Imported—			
Tapioca	cwt.	719,000	0.59
Cocoa, raw	cwt.	99,500	0.47
Coffee	lb.	3,469,000	0.23
Tea	lb.	46,629,000	2.84
Mustard	doz. lb.	47,000	0.02
Herrings	doz. lb.	276,000	0.08
Salmon	doz. lb.	1,048,000	0.71
Sild, 4-oz. tins	doz.	807,300	0.16
Tobacco, leaf	lb.	17,451,000	7.21
Principally Home-produced—			
Barley	bus.	4,940,000	0.50
Maize	bus.	315,000	0.05
Oats	bus.	14,970,000	1.43
Rice	cwt.	323,200	0.19
Wheat	bus.	39,900,000	3.75
Onions	ton	41,000	0.25
Peas	bus.	644,000	0.18
Potatoes	ton	348,000	2.28
Sugar	ton	336,000	3.87
Beef	100 lb.	7,004,750	8.88
Lamb	lb.	83,119,000	1.54
Mutton	lb.	436,414,000	4.65
Pork	lb.	47,562,000	1.24
Butter fat	lb.	194,500,000	5.28
Lard	lb.	1,427,000	0.02
Milk	gal.	159,900,000	4.70
Currants	lb.	9,900,000	0.14
Sultanas	lb.	18,000,000	0.28
Grapes	ton	94,000	0.37
Total	..	..	51.91
ALL GROUPS.			
Principally Imported			31.78
Principally Home-produced			68.22

4. **Index-numbers.**—Index-numbers for each group of commodities and for all groups combined for the index of wholesale prices of basic materials and foodstuffs are given in the following table. Current index-numbers, on the base : Average of three years ended June, 1939 = 100, are published in the *Monthly Review of Business Statistics*, and a table showing index-numbers computed to the base 1928 = 100 is published on page 47 of *Labour Report* No. 39, 1950.

WHOLESALE PRICE (BASIC MATERIALS AND FOODSTUFFS) INDEX-NUMBERS.

(Base of each Group : Average 3 years ended June, 1939 = 100.)

Period.	Basic Materials.							Foodstuffs and Tobacco.	Basic Materials and Foodstuffs.		
	Metals and Coal.	Oils, Fats and Waxes.	Textiles.	Chemicals.	Rubber and Hides.	Building Materials.	Total.		Goods principally Imported. (*a*)	Goods principally Home Produced.	Total All Groups.
1928–29	127	106	129	121	115	95	114	107	91	118	110
1929–30	126	111	99	116	87	94	107	110	94	118	111
1930–31	116	117	80	117	73	96	105	91	100	99	99
1931–32	108	113	77	119	74	95	101	86	100	92	95
1932–33	104	109	75	119	69	95	98	80	97	87	90
1933–34	103	84	102	111	80	94	92	84	89	89	90
1934–35	97	90	78	102	77	93	89	87	92	89	90
1935–36	92	95	100	99	88	93	90	92	95	92	93
1936–37	96	99	118	99	111	99	99	97	99	98	98
1937–38	101	101	100	100	97	104	102	100	102	100	101
1938–39	103	100	82	101	92	97	99	103	99	102	101
1939–40	105	115	104	107	116	108	109	101	111	103	105
1940–41	107	137	111	124	126	128	122	107	133	106	114
1941–42	117	151	118	137	135	135	133	117	153	112	124
1942–43	129	167	147	142	138	163	149	128	176	121	137
1943–44	131	170	150	143	140	174	153	129	182	122	140
1944–45	131	168	152	143	140	175	152	131	182	123	141
1945–46	130	156	152	142	140	177	149	135	178	126	141
1946–47	132	145	191	140	131	180	149	138	177	129	143
1947–48	146	161	283	148	126	190	166	153	192	145	159
1948–49	185	173	342	159	130	198	188	175	201	173	181
1949–50	214	184	434	187	143	225	214	198	223	198	205
1950–51	256	196	641	242	292	268	264	232	256	242	246
1949–50—											
July ..	209	174	331	162	119	202	197	187	206	185	191
Aug. ..	209	174	339	163	121	205	198	186	207	185	191
Sept. ..	209	173	333	162	123	208	197	185	204	185	191
Oct. ..	209	173	367	180	125	208	201	188	209	188	194
Nov. ..	209	189	386	180	134	208	207	192	217	191	199
Dec. ..	214	189	424	194	142	208	213	197	221	198	204
Jan. ..	218	189	494	199	145	241	225	193	232	197	207
Feb. ..	218	190	490	199	146	241	225	199	237	200	211
Mar. ..	218	190	480	200	151	243	225	199	236	201	211
Apr. ..	219	190	498	200	154	244	227	218	236	216	222
May ..	219	190	535	200	169	244	229	214	235	215	221
June ..	219	190	525	201	183	245	230	217	238	217	223
1950–51—											
July ..	222	190	530 (*b*)	230	177	245	234 (*b*)	214	236	218 (*b*)	223 (*b*)
Aug. ..	224	190	558	232	191	245	237	220	240	222	227
Sept. ..	227	190	543	236	220	245	239	220	242	222	228
Oct. ..	238	190	544	236	275	246	245	221	247	225	232
Nov. ..	246	190	588	236	305	254	253	225	250	232	237
Dec. ..	256	190	596	239	338	255	258	220	255	230	237
Jan. ..	258	190	772	240	338	262	271	220	256	238	243
Feb. ..	266	195	836	251	347	279	283	228	264	249	253
Mar. ..	280	202	907	252	362	280	294	246	269	268	268
Apr. ..	280	208	703	252	329	296	286	240	268	258	261
May ..	289	208	634	252	322	296	285	251	268	266	266
June ..	289	208	479	254	304	311	278	276	272	279	277

(*a*) Represents only such imported commodities as are included in the wholesale price index. This index does not measure changes in price of imports generally. (*b*) These index-numbers are computed using the price of raw wool for local manufacture. For computation using the auction room price of wool *see* paragraph 5.

NOTE.—The figures given in this table are comparable in the vertical columns but are not directly comparable horizontally.

5. **Effect of Wool Bounty.**—Legislation which became effective on 14th December, 1950, had the effect of reducing (by bounty) the price paid for raw wool for local manufacture in Australia below the open market (auction room) price. Such reductions were virtually retrospective to August, 1950, and continued until 30th June, 1951. The effective prices paid for raw wool for local manufacture (i.e. auction room price less bounty) have been used in calculating the index-numbers shown in the table above. The following table shows these same indexes calculated on the auction room prices for wool. Only the four columns marked (*b*) in the table above are affected, and only these are shown below.

Period.	Textiles.	Total Basic Materials.	Goods Principally Home-Produced.	Total All Groups.
1950–51—				
August	737	247	229	232
September	752	250	230	234
October	753	257	233	237
November	797	265	240	243
December	805	270	238	243
January	996	283	246	249
February	1,060	296	257	259
March	1,131	307	276	274
April	927	299	267	267
May	848	297	273	272
June	688	290	287	282

§ 3. Melbourne Wholesale Price Index.

1. **General.**—An index of Melbourne wholesale prices was first computed in 1912. It relates chiefly to basic materials and foods weighted in accordance with consumption in the years immediately preceding that date. Neither the component items of the regimen, nor the weighting have been varied. Consequently, the index is outmoded for current use and is a measure of variations in wholesale prices based on the weighting originally determined. It has some historic significance as a measure of changes in the prices of its component items combined in the proportions in which they were in common use about the year 1910. It is now published only on an annual basis and is mainly used as an approximate indication of long term trends since the year 1861, for which it was first compiled. A description of the index and a list of the commodities included in it were published on pages 43 to 45 of *Labour Report* No. 38 for 1949.

2. **Index-numbers.**—Index-numbers for each group of commodities as well as for all groups combined are shown in the following table :—

MELBOURNE WHOLESALE PRICE INDEX-NUMBERS.

(*Base of each Group : Year* 1911 = 1,000.)

Year.	I. Metals and Coal.	II. Wool, Cotton, Leather, etc.	III. Agricultural Produce, etc.	IV. Dairy Produce.	V. Groceries.	VI. Meat.	VII. Building Materials.	VIII. Chemicals.	All Groups.
1861.. ..	1,438	1,381	1,583	1,008	1,963	..	1,070	2,030	1,538
1871.. ..	1,096	1,257	1,236	864	1,586	..	1,044	1,409	1,229
1881.. ..	1,178	1,115	1,012	935	1,421	..	1,091	1,587	1,121
1891.. ..	895	847	1,024	995	1,032	888	780	1,194	945
1901.. ..	1,061	774	928	1,029	1,048	1,345	841	917	974
1911.. ..	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
1921.. ..	2,173	1,361	1,767	2,000	1,977	2,158	2,733	2,303	1,903
1922.. ..	1,941	1,681	1,628	1,648	1,869	1,787	2,005	1,965	1,758
1923.. ..	1,826	2,148	1,778	1,840	1,746	2,579	2,024	1,933	1,944
1924.. ..	1,835	2,418	1,647	1,655	1,721	2,223	1,814	1,806	1,885
1925.. ..	1,851	1,966	1,796	1,636	1,723	2,212	1,711	1,790	1,844
1926.. ..	1,938	1,582	2,001	1,784	1,730	1,931	1,664	1,816	1,832
1927.. ..	1,962	1,650	1,826	1,823	1,724	2,111	1,623	1,866	1,817
1928.. ..	1,912	1,781	1,726	1,751	1,707	2,015	1,744	1,923	1,792
1929.. ..	1,912	1,555	1,793	1,854	1,689	2,245	1,755	1,943	1,803
1930.. ..	1,867	1,127	1,484	1,627	1,666	2,024	1,875	1,982	1,596
1931.. ..	1,826	1,040	1,121	1,398	1,794	1,512	2,025	2,166	1,429
1932.. ..	1,736	998	1,230	1,304	1,766	1,351	2,043	2,127	1,411
1933.. ..	1,713	1,118	1,175	1,194	1,714	1,485	2,061	2,105	1,409
1934.. ..	1,660	1,261	1,288	1,274	1,735	1,540	2,015	2,017	1,471
1935.. ..	1,602	1,217	1,344	1,325	1,729	1,508	1,964	1,996	1,469
1936.. ..	1,566	1,330	1,480	1,351	1,731	1,684	1,969	1,997	1,543
1937.. ..	1,772	1,406	1,604	1,451	1,750	1,678	2,430	2,006	1,656
1938.. ..	1,746	1,051	1,789	1,549	1,747	1,871	2,238	2,059	1,662
1939.. ..	1,758	1,101	1,820	1,557	1,752	1,710	2,220	2,075	1,665
1940.. ..	1,854	1,361	1,567	1,567	1,784	1,882	2,890	2,298	1,713
1941.. ..	1,960	1,402	1,721	1,554	1,883	1,776	3,138	2,527	1,796
1942.. ..	2,146	1,507	1,900	1,665	1,938	2,312	3,409	2,437	1,977
1943.. ..	2,272	1,945	1,964	1,716	1,939	2,366	3,764	2,442	2,117
1944.. ..	2,278	1,967	2,052	1,721	1,949	2,470	3,768	2,442	2,159
1945.. ..	2,270	1,960	2,259	1,726	1,967	2,560	3,770	2,527	2,228
1946.. ..	2,262	2,062	1,951	1,722	1,977	2,589	3,772	2,614	2,162
1947.. ..	2,390	2,690	2,019	1,763	2,174	2,748	3,800	2,843	2,360
1948.. ..	2,829	3,610	2,383	2,104	2,435	2,976	4,631	3,180	2,824
1949.. ..	3,502	3,966	2,876	2,309	2,558	3,356	4,611	3,221	3,191
1950.. ..	3,902	(*a*)5,464	3,155	2,459	2,829	4,616	(*b*)5,567	3,263	(*c*)3,816

NOTE.—The figures given in this table are comparable in the vertical columns but are not directly comparable horizontally.

(*a*) Computed using, for wool, the effective home-consumption price. This group index-number computed using the auction room price for wool is 6,079 (*see* paragraph 5 on page 397). (*b*) The regimen and weighting of the original Building Materials group of this index has become unreal. The movement shown here for this group between 1949 and 1950 has been calculated in accordance with the movement occurring in the Building Materials group of the Basic Materials and Foodstuffs Index. (*c*) Computed using, for wool, the effective home-consumption price. The all groups index-number computed using the auction room price for wool is 3,921.

C. CONTROL OF PRICES DURING AND SINCE THE 1939-45 WAR.

1. **General.**—An account of the measures taken by the Commonwealth Government to control prices from September, 1939 (immediately after the outbreak of war), until 29th May, 1948 (the date of the Prices Referendum), is given in Official Year Book No. 37, pp. 458–464.

2. **Transfer of Price Control to the States.**—Consequent upon the rejection of the proposal embodied in the Prices Referendum held on 29th May, 1948, that permanent power to control rents and prices (including charges) be conferred on the Commonwealth Government, responsibility for price fixation was assumed by the State Governments and steps were taken to pass State Prices Acts. These acts were proclaimed to operate simultaneously on 20th September, 1948. Except in the case of Queensland, each Act was to remain in force for a specific period, but the period varied from State to State.

An amendment of the National Security (Prices) Regulations on 15th September, 1948, provided that the Minister may, by declaration published in the *Gazette*, declare that from and including a date specified prices for the sale of goods and rates for the supply of services in a State or Territory of the Commonwealth specified in the declaration would cease to be controlled under the Regulations. In pursuance of this power, the Minister for Trade and Customs issued declarations on 17th September, 1948, providing for the relinquishment of price control by the Commonwealth in the States as from 20th September, 1948.

On 20th September, 1948, each State Government issued declarations covering uniform lists of goods and services, which were brought under price control. Existing Commonwealth Prices Regulation Orders continued to apply to these goods and services until specially varied in accordance with the terms of the State legislation. At the same time, the Commonwealth Government issued an identical list of declared items to operate in the Australian Capital Territory and other Territories of the Commonwealth.

In the operation of State price control, the State Prices Commissioners closely collaborate. Conferences of Commissioners are held at intervals of approximately two months. The Commissioners are vested with certain powers of price control under the Prices Acts, and it is the usual procedure after the administrative conference for State Prices Ministers to meet to discuss matters of policy and any specific questions referred to them for determination. Thus a large degree of uniformity is attained in controlling and decontrolling items and in the fixation of margins and prices of major items.

3. **Price Stabilization.**—Expenditure by the Commonwealth Government on Price Stabilization Subsidies reached a peak in 1947–48 and since then the Commonwealth Government has progressively reduced the range of commodities eligible for subsidy.

In addition to those subsidies which had been an integral part of the Price Stabilization Plan, the Commonwealth Government paid bounties and subsidies for assistance to primary production, and these payments also had a stabilizing influence on prices.

For details of expenditure by the Commonwealth Government on Price Stabilization and other Subsidies and Bounties, see Chapter XVII.—Public Finance.

D. WAGES.

§ 1. Operations under Wages Board and Industrial Arbitration Acts.

Particulars regarding operations under the Commonwealth and State Acts for the regulation of wages, hours and conditions of labour were first compiled for the year 1913, and reviews to the end of each annual period appear in the *Labour Reports* up to and including No. 36, in the *Quarterly Summaries of Australian Statistics* up to and including No. 190 and in previous issues of the Official Year Book (*see* No. 37, p. 465). Owing to the lack of comparability between States, which rendered the figures of doubtful value and to difficulties encountered in the collection of these statistics they have been discontinued.

§ 2. Rates of Wage and Hours of Labour.

1. **General.**—The collection of information respecting the current rates of wage payable in different callings and in occupations in various industries was first undertaken by this Bureau in the early part of 1913. The particulars are obtained primarily from awards, determinations and agreements under Commonwealth and State Industrial Acts, and are therefore the minimum rates prescribed. They refer generally to the capital city in each State, but in industries which are not carried on in the capital cities, e.g., mining, agriculture, etc., the rates in the more important centres are taken. In cases where no award, determination, or agreement is in force, particulars are taken of the ruling union or predominant rate. During recent years the number of predominant rates of wage included in the tabulations has been reduced considerably, as most of the industries and occupations are now covered by awards, determinations, or industrial agreements. The figures of nominal wages and hours are in course of revision to meet changes in industrial structure. The amounts should not be regarded as actual current averages, but as an index of changes expressed in money and hour terms.

The index-numbers for male adult workers are computed with the weighted average wage in 1911 as base (= 1,000). In the case of females, however, it has not been possible to secure information for the years prior to 1914, and the index-numbers are therefore computed with the weighted average rate of wage payable to adult female workers in Australia at 30th April, 1914 as base (= 1,000).

An extensive tabular presentation of the minimum rates of wage for adult male and female workers in the main occupations in the capital city of each State is given each year in the Appendix to the *Labour Report*.

2. **Weekly Rates of Wage, 1939, 1946 to 1950.**—(i) *General*. The average rate of wage for each industrial group is computed by taking the arithmetic average of the rates of wage payable for all classified occupations within that group. These averages are weighted to give the average for the States and for Australia.

(ii) *Adult Males—States*. The following table gives the weighted average nominal weekly rates of wage payable to adult male workers at the dates specified :—

WAGE RATES OF ADULT MALES.

WEIGHTED AVERAGE NOMINAL WEEKLY RATES PAYABLE FOR A FULL WEEK'S WORK AND INDEX-NUMBERS OF WAGE RATES.(a)

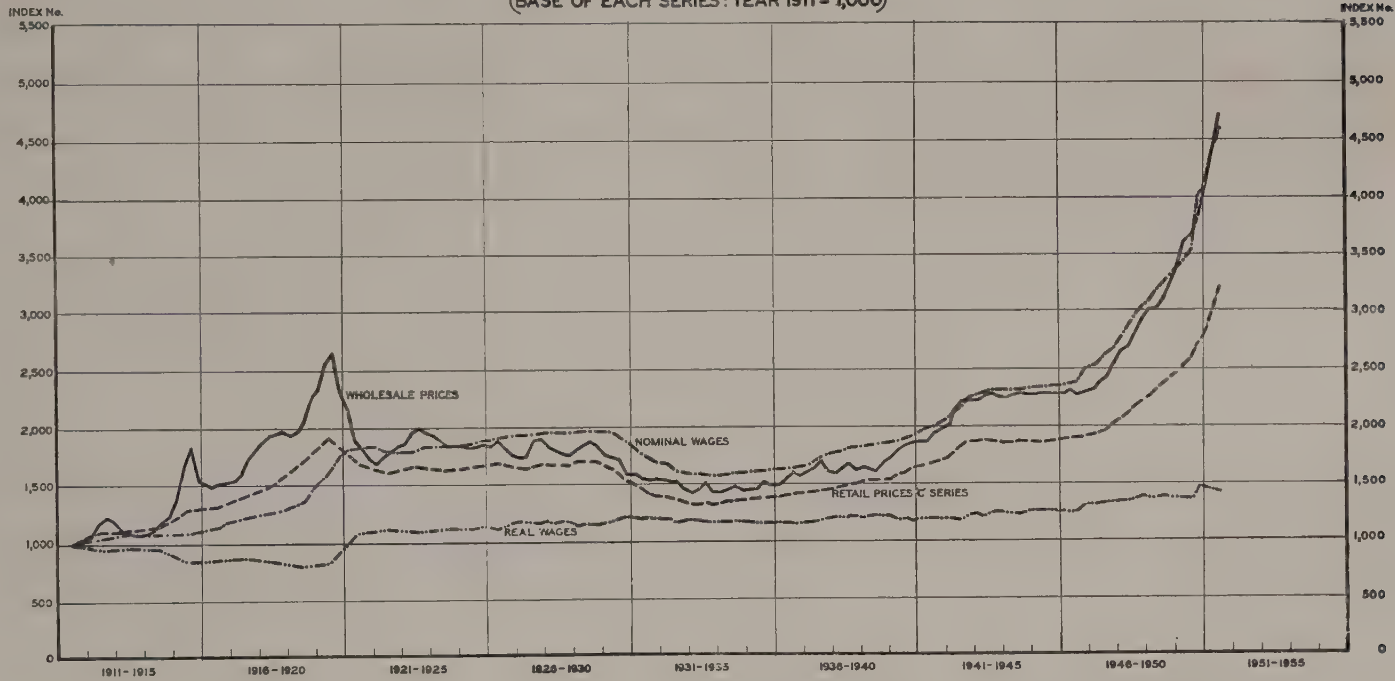
Particulars.	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	Aust.
No. of Occupations included(b) ..	870	894	615	562	477	466	3,884
RATES OF WAGE.							
	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
31st December, 1939 ..	96 7	93 6	97 5	88 11	100 6	89 5	95 3
,, ,, 1946 ..	130 11	128 11	128 0	121 4	125 7	125 2	128 6
,, ,, 1947 ..	141 3	136 10	134 9	133 10	137 8	133 0	137 11
,, ,, 1948 ..	159 9	155 5	151 4	153 7	156 6	153 2	156 4
31st March, 1949 ..	161 8	158 6	154 6	155 4	159 6	156 4	158 10
30th June, 1949	165 4	162 7	159 8	161 11	162 5	160 5	163 1
30th September, 1949 ..	169 1	165 11	162 10	163 3	167 11	163 5	166 6
31st December, 1949 ..	171 11	168 11	167 10	165 3	171 6	165 4	169 8
31st March, 1950.. ..	174 9	172 9	170 3	168 8	175 6	167 11	172 10
30th June, 1950	179 4	176 10	176 11	172 3	178 8	169 7	177 3
30th September, 1950 ..	184 6	180 8	180 2	176 11	183 4	174 7	181 8
31st December, 1950 ..	209 6	204 5	199 10	200 6	208 3	199 7	205 6
INDEX-NUMBERS. (*Base : Weighted Average Wage for Australia* (51s. 3d.), 1911 = 1,000.)							
31st December, 1939 ..	1,885	1,825	1,900	1,735	1,962	1,745	1,858
,, ,, 1946 ..	2,554	2,515	2,498	2,368	2,450	2,442	2,507
,, ,, 1947 ..	2,757	2,670	2,630	2,612	2,686	2,595	2,690
,, ,, 1948 ..	3,117	3,032	2,953	2,997	3,054	2,988	3,050
31st March, 1949 ..	3,154	3,092	3,014	3,031	3,111	3,051	3,099
30th June, 1949	3,227	3,172	3,116	3,159	3,169	3,130	3,182
30th September, 1949 ..	3,299	3,238	3,177	3,185	3,276	3,189	3,249
31st December, 1949 ..	3,355	3,296	3,275	3,225	3,346	3,227	3,310
31st March, 1950 ..	3,410	3,371	3,322	3,290	3,425	3,276	3,372
30th June, 1950	3,499	3,450	3,452	3,360	3,486	3,309	3,458
30th September, 1950 ..	3,600	3,526	3,516	3,452	3,577	3,406	3,545
31st December, 1950 ..	4,088	3,989	3,900	3,911	4,064	3,895	4,009

(a) The figures of nominal wages and hours of labour are in course of revision to meet changes in industrial structure. The amounts shown should not be regarded as actual current averages but as an index of changes expressed in money and hour terms. (b) As at 31st December, 1950.

During the early war years nominal weekly wages advanced annually in each State, the greatest increase occurring in 1942 (11 per cent. for Australia), followed by an increase of 3 per cent. in the following year, after which they remained comparatively stable until the fourth quarter of 1946 when they advanced 5.4 per cent. due mainly to the increase in the "needs" wage granted by the Commonwealth Court of Conciliation and Arbitration in its judgment of 13th December, 1946. With the relaxation of the Wage Pegging Regulations and the end of Price Stabilization wages rose rapidly during 1947 and subsequent years. At the end of 1950 the upward movement was accelerated as a result of the Basic Wage increases which followed the 1949–50 Basic Wage Inquiry (*see* page 415).

WHOLESALE AND RETAIL PRICES, NOMINAL, AND EFFECTIVE OR REAL WAGES—INDEX-NUMBERS AUSTRALIA, 1911 TO 1951

(BASE OF EACH SERIES: YEAR 1911 = 1,000)



EXPLANATION.—The index-numbers in the graph above are for the Six Capital Cities as a whole, with the exception of those for Wholesale Prices up to the fourth quarter of 1927, which are for Melbourne. They are all calculated to the common base 1911 = 1,000, the scale for which appears on the left of the graph. The wholesale prices graph shows the trend of prices according to the "old" Melbourne Index up to the fourth quarter of 1927, but thereafter, this index having been "spliced" with the Basic Materials and Foodstuffs Index, the curve line moves in accordance with the variations of the latter. The price quotations for this index are, in the main, obtained from Melbourne sources, but their movements may be taken as representative of fluctuations in most Australian markets. Points in this graph are plotted quarterly from 1912 onward. The "C" Series Retail Price index-numbers (food, groceries, rent of 4 and 5-roomed houses, clothing and miscellaneous household expenditure) are shown *quarterly* from 1925. For the period 1911–1914 the "C" Series index-numbers are taken back from the true base (November, 1914 = 1,000) by means of the "A" Series Index (Food and Rent of All Houses). Nominal Wages are shown *quarterly* from 1914, and Real Wages *quarterly* from 1925. Real wages are computed on the basis of the "C" Series Retail Price Index.

Male wages at 31st December, 1950, were 115.7 per cent. higher than in December, 1939, and 68.7 per cent. higher than in September, 1946.

(iii) *Adult Males—Industrial Groups.* The following table shows for Australia the average weekly rates of wage and index-numbers in each industrial group and for all groups at the dates specified.

WAGE RATES OF ADULT MALES.

WEIGHTED AVERAGE NOMINAL WEEKLY RATES FOR A FULL WEEK'S WORK AND INDEX-NUMBERS OF WAGE RATES IN EACH INDUSTRIAL GROUP(*a*).

NOTE.—Index-numbers for each industrial group and for all industrial groups are based on the average wage for all groups in 1911 (51s. 3d.) = 1,000. The index-numbers in this table are comparable throughout :—

Industrial Group.		Weighted Average Nominal Weekly Rate of Wage (shillings and pence) and Index-number at—							
		31st Dec., 1939.	31st Dec., 1947.	31st Dec., 1948.	31st Dec., 1949.	31st Mar., 1950.	30th June, 1950.	30th Sept., 1950.	31st Dec., 1950.
I. Wood, Furniture, etc.	Wage ..	100/1	140/2	155/6	166/7	169/6	171/11	177/6	199/8
	Index-No.	1,953	2,735	3,034	3,250	3,307	3,355	3,464	3,896
II. Engineering, etc.	Wage ..	99/3	144/0	155/10	166/1	169/4	172/0	175/6	198/2
	Index-No.	1,936	2,811	3,041	3,241	3,304	3,356	3,424	3,867
III. Food, Drink, etc.	Wage ..	96/9	134/8	151/6	166/2	170/0	173/8	177/8	199/11
	Index-No.	1,888	2,628	2,956	3,243	3,317	3,389	3,467	3,901
IV. Clothing, Textiles, etc.	Wage ..	93/2	132/8	153/7	164/2	165/4	176/6	177/7	202/10
	Index-No.	1,817	2,589	2,997	3,204	3,226	3,443	3,466	3,957
V. Books, Printing, etc.	Wage ..	114/3	158/7	177/2	194/7	198/1	201/10	204/9	228/9
	Index-No.	2,229	3,094	3,457	3,796	3,865	3,939	3,994	4,463
VI. Other Manufacturing	Wage ..	95/8	136/8	153/11	165/1	169/8	172/7	176/5	199/0
	Index-No.	1,867	2,667	3,003	3,221	3,310	3,367	3,442	3,883
VII. Building ..	Wage ..	106/5	154/0	171/9	183/0	186/4	189/1	193/1	215/11
	Index-No.	2,076	3,005	3,352	3,570	3,636	3,690	3,767	4,212
VIII. Mining, etc. ..	Wage ..	109/1	148/4	163/5	175/7	179/11	183/10	188/2	211/0
	Index-No.	2,142	2,895	3,189	3,426	3,511	3,588	3,672	4,118
IX. Railways, etc. ..	Wage ..	96/6	142/3	156/1	167/3	170/7	173/6	177/2	199/2
	Index-No.	1,884	2,775	3,045	3,263	3,328	3,385	3,456	3,887
X. Other Land Transport	Wage ..	92/10	128/6	145/8	160/0	163/6	166/1	169/9	192/7
	Index-No.	1,812	2,507	2,843	3,123	3,190	3,241	3,312	3,757
XI. Shipping, etc.(*b*)	Wage ..	98/6	136/4	182/0	192/4	196/5	198/6	201/9	230/2
	Index-No.	1,922	2,661	3,551	3,753	3,833	3,874	3,937	4,491
XII. Agricultural, etc.(*c*)	Wage ..	84/0	136/5	158/1	174/7	176/8	186/1	193/4	222/2
	Index-No.	1,639	2,662	3,085	3,407	3,447	3,631	3,737	4,335
XIII. Domestic, etc.(*c*)	Wage ..	89/11	126/11	141/5	154/9	157/11	160/10	164/5	186/8
	Index-No.	1,755	2,476	2,759	3,020	3,082	3,138	3,208	3,643
XIV. Miscellaneous	Wage ..	92/10	130/10	148/3	162/0	165/3	167/11	171/6	192/9
	Index-No.	1,811	2,553	2,893	3,161	3,225	3,276	3,346	3,761
All Industrial Groups	Wage ..	95/3	137/11	156/4	169/8	172/10	177/3	181/8	205/6
	Index-No.	1,858	2,690	3,050	3,310	3,372	3,458	3,545	4,009

(*a*) *See* note (*a*) on page 400. (*b*) Includes the value of victualling and accommodation where supplied. (*c*) Includes the value of board and lodging where supplied.

The foregoing table shows that the highest average weekly wage at 31st December, 1950, was recorded in Group XI. (Shipping, etc.), 230s. 2d. per week, followed by Groups V. (Books, Printing. etc.), 228s, 9d., XII. (Agricultural, etc.), 222s. 2d., VII. (Building), 215s. 11d., VIII. (Mining, etc.), 211s., IV. (Clothing, Textiles, etc.), 202s. 10d. and III. (Food, drink, etc.), 199s. 11d. The lowest average rate was recorded in Group XIII., (Domestic, etc.), 186s. 8d. Compared with those prevailing at 31st December, 1949, rates of wage increased in all industrial groups during 1950.

(iv) *Adult Females—States.* The following table shows the weighted average nominal weekly rates of wage payable to adult female workers for a full week's work in each State and Australia at the dates specified.

WAGE RATES OF ADULT FEMALES.

WEIGHTED AVERAGE NOMINAL WEEKLY RATES PAYABLE FOR A FULL WEEK'S WORK AND INDEX-NUMBERS OF WAGE RATES(*a*).

Particulars.	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	Aust.
No. of Occupations included(*b*) ..	84	87	38	47	24	32	312

RATES OF WAGE.

	s.	d.	s.	d.	s.	d.	s.	d.	s.	d.	s.	d.	s.	d.
31st December, 1939 ..	53	3	51	9	55	2	49	7	55	8	50	8	52	8
,, ,, 1946 ..	80	4	82	6	82	4	76	0	73	10	77	8	80	9
,, ,, 1947 ..	84	3	88	6	85	10	80	10	80	1	81	11	85	8
,, ,, 1948 ..	100	0	103	1	98	4	95	1	93	5	96	8	100	4
31st March, 1949 ..	101	2	104	7	99	8	96	1	98	1	97	5	101	9
30th June, 1949	103	6	107	9	101	9	98	10	100	9	100	2	104	5
30th September, 1949 ..	105	10	109	5	103	2	99	3	102	10	104	0	106	3
31st December, 1949 ..	108	1	112	4	108	5	101	0	105	5	106	4	109	1
31st March, 1950 ..	109	5	114	3	109	8	102	4	106	2	107	5	110	9
30th June, 1950	114	3	120	7	115	7	108	3	112	9	114	5	116	5
30th September, 1950 ..	115	10	122	1	116	11	109	4	114	0	116	0	117	10
31st December, 1950 ..	139	11	142	11	135	11	142	1	132	3	137	2	140	5

INDEX-NUMBERS.

(*Base: Weighted Average for Australia* (27s. 2d.), 30*th April,* 1914 = 1,000.)

31st December, 1939 ..	1,960	1,906	2,031	1,826	2,049	1,866	1,938
,, ,, 1946 ..	2,956	3,035	3,031	2,797	2,718	2,860	2,972
,, ,, 1947 ..	3,102	3,256	3,160	2,976	2,947	3,014	3,152
,, ,, 1948 ..	3,681	3,795	3,618	3,499	3,438	3,559	3,694
31st March, 1949 ..	3,724	3,848	3,668	3,538	3,611	3,584	3,745
30th June, 1949	3,811	3,967	3,745	3,637	3,710	3,686	3,844
30th September, 1949 ..	3,896	4,026	3,798	3,653	3,784	3,826	3,911
31st December, 1949 ..	3,979	4,134	3,990	3,716	3,880	3,915	4,015
31st March, 1950 ..	4,028	4,205	4,038	3,767	3,906	3,955	4,072
30th June, 1950	4,206	4,438	4,255	3,984	4,151	4,211	4,284
30th September, 1950 ..	4,264	4,493	4,303	4,023	4,194	4,269	4,338
31st December, 1950 ..	5,510	5,259	5,003	5,229	4,866	5,050	5,169

(*a*) *See* note (*a*) to table on page 400. (*b*) As at 31st December, 1950.

It should be noted that the base of these index-numbers is 1914 and not 1911 as in the foregoing tables for adult males. This is because there is no tabulation for adult female rates prior to 1914.

As with the rates for males, increases were recorded in all States during the war years and after, especially after September, 1946 when female rates were increased under the National Security (Female Minimum Wage) Regulations. The weighted average rate for Australia at 31st December, 1946, had advanced by 37s. 4d. per week over that ruling on 31st December, 1933. Female rates have risen rapidly since December, 1946, partly because of the increase in marginal rates but mainly because of the increase in the female basic wage rates. The weighted average rate for Australia at 31st December, 1950 (140s. 5d.) was the highest recorded to that date and was 166.6 per cent. above the average at 31st December, 1939.

(v) *Adult Females—Industrial Groups.* The following table shows the weighted average weekly rates of wage payable in Australia to adult female workers in the industrial groups in which they are mainly employed, and in all groups combined.

WAGE RATES OF ADULT FEMALES.

WEIGHTED AVERAGE NOMINAL WEEKLY RATES PAYABLE FOR A FULL WEEK'S WORK AND INDEX-NUMBERS OF WAGE RATES IN EACH INDUSTRIAL GROUP(*a*).

Date.	Industrial Group. III. Food, Drink, etc.	IV. Clothing, Textiles, etc.	I. II., V., and VI. All Other Manufacturing.	XIII. Domestic, etc.(*b*)	XIV. Miscellaneous.	All Groups.
RATES OF WAGE.						
	s. d.	*s. d.*	*s. d.*	*s. d.*	*s. d.*	*s. d.*
31st December, 1939..	48 9	50 9	51 11	54 5	56 8	52 8
,, ,, 1946..	74 9	84 7	79 5	72 9	81 0	80 9
,, ,, 1947..	83 3	87 7	90 2	76 7	88 5	85 8
,, ,, 1948..	95 10	101 7	103 3	89 3	107 9	100 4
31st March, 1949 ..	98 6	102 3	105 7	91 0	109 9	101 9
30th June, 1949 ..	100 0	105 6	107 2	92 7	112 11	104 5
30th September, 1949	103 2	106 3	110 3	95 2	115 10	106 3
31st December, 1949..	105 5	109 5	111 11	97 5	119 1	109 1
31st March, 1950 ..	108 0	110 0	115 0	99 5	121 7	110 9
30th June, 1950 ..	111 4	119 7	117 3	101 6	123 8	116 5
30th September, 1950	113 10	120 1	119 6	103 6	126 1	117 10
31st December, 1950..	135 9	139 2	147 1	132 1	149 9	140 5
INDEX-NUMBERS. (*Base: Weighted Average for Australia* (27s. 2d.), 30th *April*, 1914 = 1,000.)						
31st December, 1939..	1,795	1,869	1,910	2,003	2,085	1,938
,, ,, 1946..	2,751	3,113	2,922	2,678	2,980	2,972
,, ,, 1947..	3,064	3,222	3,317	2,820	3,253	3,152
,, ,, 1948..	3,526	3,739	3,802	3,284	3,967	3,694
31st March, 1949 ..	3,625	3,764	3,886	3,350	4,041	3,745
30th June, 1949 ..	3,681	3,883	3,944	3,408	4,157	3,844
30th September, 1949	3,796	3,911	4,059	3,501	4,262	3,911
31st December, 1949..	3,879	4,026	4,118	3,586	4,384	4,015
31st March, 1950 ..	3,975	4,049	4,232	3,660	4,476	4,072
30th June, 1950 ..	4,098	4,400	4,315	3,735	4,552	4,284
30th September, 1950	4,190	4,421	4,399	3,811	4,642	4,338
31st December, 1950..	4,996	5,121	5,412	4,861	5,512	5,169

(*a*) *See* note (*a*) to table on page 400. (*b*) Includes the value of board and lodging, where supplied.

During 1950 the rate of wage for female employees in each industrial group increased as follows :—III. (Food, etc.), 30s. 4d. per week ; IV. (Clothing, etc.), 29s. 9d. per week ; I. II., V. and VI. (all other manufacturing), 35s. 2d. ; XIII. (Domestic, etc.), 34s. 8d. and XIV. (Miscellaneous), 30s. 8d. The weighted average for all groups increased by 31s. 4d. per week.

3. **Relative Hours of Labour and Hourly Rates of Wage, 1939 to 1950.**—(i) *General.* The rates of wage referred to in preceding paragraphs are the minima payable for a full week's work. The number of hours constituting a full week's work differs, however, in some instances between various trades and occupations in each State, and between the same trades and occupations in the several States. To secure what may be for some purposes a better comparison, the results in the preceding paragraphs are reduced to a common basis, namely, the rate of wage per hour. Particulars as at the end of the years 1946 to 1950 compared with 1939 are given in the following table, for males and females separately in each State. These particulars relate to (*a*) the weighted average nominal weekly wage ; (*b*) the weighted average number of working hours constituting a full week's work ; and (*c*) the weighted average hourly wage. The weighted average weekly wage relates to all industrial groups combined and includes the value of board and lodging where supplied in land occupations, and the value of victualling and accommodation where supplied in marine occupations, whereas the number of working hours and the hourly wage relate to all industrial groups other than Groups XI. (Shipping), and XII. (Agricultural, Pastoral, etc.). Some of the occupations included in these groups are of a casual or seasonal nature, and the hours of labour are not generally regulated either by awards or determinations of industrial tribunals or otherwise, hence the necessary definite particulars for the computation of the average number of working hours are not available.

The downward tendency in hours of labour for Australia commenced in the December quarter of 1924, when the weighted averages were 46.66 for males and 46.02 for females, and, excepting for slight increases in 1929 and 1930, the reduction has continued. During the second half of 1947 hours for males and females in New South Wales were reduced owing to the introduction of the forty-hour week in occupations under the jurisdiction of State arbitration. In Australia generally, the forty-hour week operated from 1st January, 1948 and was responsible for substantial reductions in hours in that year. The weighted averages for Australia at 31st December, 1950 were 39.96 hours for males and 40.00 hours for females.

The general effect of reducing the rates of wages to a common basis (i.e., per hour) is to eliminate any difference between the several States which may be due to unequal working time.

(ii) *Adult Males and Females.* Particulars of the weekly and hourly wages and hours of labour for adult males and females at the close of the years 1946 to 1950 compared with 1939 are given in the table hereunder.

WEEKLY AND HOURLY WAGES AND WEEKLY HOURS OF LABOUR: ADULT WORKERS.(*a*)

31st December—	Particulars.	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	Aust.
	MALE WORKERS.							
1939.. ..	Weekly Wage (*b*) ..	96/7	93/6	97/5	88/11	100/6	89/5	95/3
	Weekly Hours of Labourc	43.92	44.61	43.46	45.83	44.33	45.33	44.29
	Hourly Wage (*c*) ..	2/3½	2/1½	2/3½	1/11½	2/4	2/0	2/2½
1946.. ..	Weekly Wage (*b*) ..	130/11	128/11	128/0	121/4	125/7	125/2	128/6
	Weekly Hours of Labourc	43.50	43.82	43.18	44.07	43.15	43.38	43.57
	Hourly Wage (*c*) ..	3/0½	2/11¼	2/11	2/8¾	2/10¾	2/9¾	2/11½
1947.. ..	Weekly Wage (*b*) ..	141, 3	136/10	134/9	133/10	137/8	133/0	137/11
	Weekly Hours of Labourc	41.11	43.68	43.18	42.84	43.15	43.27	42.51
	Hourly Wage (*c*) ..	3/5½	3/1¾	3/0¾	3/1½	3/2½	3/1	3/3
1948.. ..	Weekly Wage (*b*) ..	159/9	155/5	151/4	153/7	156/6	153/2	156/4
	Weekly Hours of Labourc	40.00	39.99	40.00	40.00	39.57	40.00	39.96
	Hourly Wage (*c*) ..	3/11½	3/10½	3/8½	3/9¼	3/11	3/9½	3/10½
1949.. ..	Weekly Wage (*b*) ..	171/11	168/11	167/10	165/3	171/6	165/4	169/8
	Weekly Hours of Labourc	39.99	39.99	40.00	40.00	39.54	40.00	39.96
	Hourly Wage (*c*) ..	4/3	4/2¼	4/0½	4/0¾	4/3½	4/1	4/2½
1950.. ..	Weekly Wage (*b*) ..	209/6	204/5	199/10	200/6	208/3	199/7	205/6
	Weekly Hours of Labourc	39.99	39.99	40.00	40.00	39.54	40.00	39.96
	Hourly Wage (*c*) ..	5/1¼	5/0¼	4/8½	4/9¾	5/1¾	4/11	5/0
	FEMALE WORKERS.							
1939.. ..	Weekly Wage (*b*) ..	53/3	51/9	55/2	49/7	55/8	50/8	52/8
	Weekly Hours of Labour	43.88	44.42	44.01	45.96	45.38	45.10	44.36
	Hourly Wage ..	1/2½	1/2	1/3	1/1	1/2¾	1/1½	1/2¼
1946.. ..	Weekly Wage (*b*) ..	80/4	82/6	82/4	76/0	73/10	77/8	80/9
	Weekly Hours of Labour	43.88	44.19	44.00	43.99	44.00	44.00	44.03
	Hourly Wage ..	1/10	1/10½	1/10½	1/8¾	1/8¼	1/9¼	1/10
1947.. ..	Weekly Wage (*b*) ..	84/3	88/6	85/10	80/10	80/1	81/11	85/8
	Weekly Hours of Labour	41.78	43.99	44.00	42.19	44.00	44.00	43.08
	Hourly Wage ..	2/0¼	2/0¼	1/11½	1/11	1/9¾	1/10¼	1/11¾
1948.. ..	Weekly Wage (*b*) ..	100/0	103/1	98/4	95/1	93/5	96/8	100/4
	Weekly Hours of Labour	40.00	40.00	40.00	40.00	40.00	40.00	40.00
	Hourly Wage ..	2/6	2/7	2/5½	2/4½	2/4	2/5	2/6
1949.. ..	Weekly Wage (*b*) ..	108/1	112/4	108/5	101/0	105/5	106/4	109/1
	Weekly Hours of Labour	40.00	40.00	40.00	40.00	40.00	40.00	40.00
	Hourly Wage ..	2/8½	2/9¾	2/8½	2/6¼	2/7½	2/8	2/8¾
1950.. ..	Weekly Wage (*b*) ..	139/11	142/11	135/11	142/1	132/3	137/2	140/5
	Weekly Hours of Labour	40.00	40.00	40.00	40.00	40.00	40.00	40.00
	Hourly Wage ..	3/6	3/6¾	3/4¾	3/6½	3/3¾	3/5¼	3/6¼

(*a*) *See* note (*a*) to table on page 400. (*b*) Weighted average weekly rate for all industrial groups combined. (*c*) Weighted average working hours per week (excluding overtime), and computed hourly rates of wage for all industrial groups excepting Groups XI. (Shippng, etc.), and XII. (Agricultural, Pastoral, etc.) Working hours have not been generally regulated by industrial tribunals for some of the occupations classified in industrial groups XI. and XII.

(iii) *Index-numbers.* The effect of changes in hours of labour on the hourly rate of wage as compared with the general increase in the weekly wage is readily seen from the comparative index-numbers for all classes combined given in the following table. It should be noted that these comparative index-numbers for males and females are on the 1914 base as against the 1911 base of the earlier tables for adult males. This is because there is no tabulation for adult female rates prior to 1914 :—

INDEX-NUMBERS OF WEEKLY AND HOURLY WAGE RATES AND WEEKLY HOURS OF LABOUR : ADULT WORKERS.(*a*)

(*Base : Weighted Average for Australia, 30th April,* 1914* = 1,000.)

31st December—	Particulars.	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	Aust.
	MALE WORKERS.							
1939	Weekly Wage ..	1,753	1,697	1,767	1,613	1,824	1,623	1,728
	Weekly Hours of Labour(*b*)	898	912	888	937	906	926	905
	Hourly Wage (*b*) ..	1,963	1,834	1,979	1,692	2,001	1,717	1,903
1946	Weekly Wage ..	2,374	2,338	2,323	2,202	2,278	2,271	2,331
	Weekly Hours of Labour(*b*)	889	896	882	901	882	887	890
	Hourly Wage(*b*) ..	2,593	2,533	2,509	2,339	2,491	2,423	2,529
1947	Weekly Wage ..	2,563	2,483	2,445	2,428	2,497	2,413	2,501
	Weekly Hours of Labour(*b*)	840	893	882	876	882	884	869
	Hourly Wage(*b*) ..	2,974	2,709	2,638	2,692	2,754	2,648	2,797
1948	Weekly Wage ..	2,899	2,819	2,746	2,787	2,840	2,779	2,836
	Weekly Hours of Labour(*b*)	817	817	817	817	809	817	817
	Hourly Wage(*b*) ..	3,399	3,322	3,180	3,246	3,364	3,254	3,327
1949	Weekly Wage ..	3,119	3,064	3,045	2,998	3,111	3,000	3,077
	Weekly Hours of Labour(*b*)	817	817	817	817	808	817	817
	Hourly Wage(*b*) ..	3,654	3,607	3,463	3,484	3,691	3,515	3,599
1950	Weekly Wage ..	3,801	3,709	3,626	3,637	3,778	3,622	3,727
	Weekly Hours of Labour(*b*)	817	817	817	817	808	817	817
	Hourly Wage(*b*) ..	4,393	4,318	4,047	4,142	4,430	4,230	4,301
	FEMALE WORKERS.							
1939	Weekly Wage ..	1,960	1,906	2,031	1,826	2,049	1,866	1,938
	Weekly Hours of Labour	894	905	897	936	925	919	904
	Hourly Wage ..	2,193	2,107	2,267	1,952	2,217	2,032	2,145
1946	Weekly Wage ..	2,956	3,305	3,031	2,797	2,718	2,860	2,972
	Weekly Hours of Labour	894	900	896	896	896	896	897
	Hourly Wage ..	3,307	3,373	3,383	3,122	3,033	3,191	3,315
1947	Weekly Wage ..	3,102	3,256	3,160	2,976	2,947	3,014	3,152
	Weekly Hours of Labour	851	896	896	860	896	896	878
	Hourly Wage ..	3,646	3,634	3,527	3,464	3,289	3,363	3,593
1948	Weekly Wage ..	3,681	3,795	3,618	3,499	3,438	3,559	3,694
	Weekly Hours of Labour	814	814	814	814	814	814	814
	Hourly Wage ..	4,518	4,658	4,441	4,295	4,220	4,369	4,535
1949	Weekly Wage ..	3,979	4,134	3,990	3,716	3,880	3,915	4,015
	Weekly Hours of Labour	814	814	814	814	814	814	814
	Hourly Wage ..	4,884	5,074	4,898	4,562	4,762	4,806	4,929
1950	Weekly Wage ..	5,150	5,259	5,003	5,229	4,866	5,050	5,169
	Weekly Hours of Labour	814	814	814	814	814	814	814
	Hourly Wage ..	6,322	6,455	6,142	6,419	5,973	6,199	6,345

(*a*) *See* note (*a*) to table on page 400. (*b*) *See also* footnote (*c*) to previous table.

* Approximate Weekly Rates—M = 55/1 : F = 27/2. Hourly Rates—M = 1/2 ; F = 0/6¾. Weekly Hours of Labour—M = 48.93 ; F = 49.08.

4. **Nominal and Effective Wages.**—(i) *General.* Index numbers of wage rates are said to be *nominal* when they represent changes in the wage rates themselves but are described as *effective* or *real* when they represent changes in equivalent purchasing power, that is, the purchasing power of the corresponding wages in terms of some definite composite unit or regimen the cost of which can be ascertained at different times. The relation between *nominal* and *effective* or *real* wages was discussed at some length in *Labour Report* No. 6, and was also referred to in *Labour Report* No. 11.

Since it is possible to measure purchasing power over more than one composite unit or regimen it is equally possible to convert any given nominal wage series into more than one series of effective or real wages. Prior to 1936 it was the practice of this Bureau to compute effective wage index-numbers by dividing the nominal wage index-numbers by the corresponding retail price index-numbers for food, groceries and rent of all houses (" A " series). While wage rates were generally varied on the basis of the " A " series index-numbers there was a good deal to be said for this procedure. When the Commonwealth Court abandoned the " A " series, the merits of the " C " series for " deflating " nominal wage rates were strengthened and real wages to the end of 1937 were measured in terms of their purchasing power over both regimens. Since 1938 when computations of the " A " series was discontinued, real wages have been measured in terms of their purchasing power over the " C " series only. The " C " series covers food, groceries, rent of four and five-roomed houses, clothing and miscellaneous household requirements.

(ii) *Nominal Weekly Wage Index-numbers, Adult Males,* 1911 *to* 1950—*States.* The following table shows for the period 1911 to 1950 the weighted average nominal weekly rates of wage payable for adult males in each State, the weighted average rate for Australia in 1911 being taken as the base (= 1,000). These results are based generally upon rates of wage prevailing in the capital city of each State, but in certain industries, such as mining, rates are necessarily taken for places other than the capital cities. The index-numbers for 1911 are based on rates current at the end of December, annual averages not being available. For 1914 and subsequent years, however, the index-numbers are based on the average rates current at the end of the four quarters of each year :—

NOMINAL WEEKLY WAGE INDEX-NUMBERS : ADULT MALES.

(*Base : Weighted Average Wage for Australia,* 1911 = 1,000.)

State.	1911.	1914.	1921.	1929.	1931.	1939.	1941.	1946.	1947.	1948.	1949.	1950.
N.S. Wales ..	1,003	1,093	1,862	2,012	1,851	1,874	2,024	2,431	2,647	2,973	3,259	3,649
Victoria ..	985	1,062	1,803	1,964	1,683	1,808	1,984	2,403	2,585	2,909	3,200	3,584
Queensland ..	997	1,035	1,879	1,976	1,769	1,885	1,981	2,384	2,580	2,840	3,164	3,548
South Australia	1,013	1,061	1,697	1,891	1,580	1,725	1,897	2,285	2,496	2,841	3,150	3,503
W. Australia ..	1,152	1,223	1,832	1,960	1,745	1,956	2,106	2,424	2,597	2,888	3,226	3,638
Tasmania ..	799	1,027	1,745	1,840	1,625	1,738	1,895	2,336	2,512	2,861	3,149	3,472
Australia ..	1,000	1,081	1,826	1,972	1,752	1,846	1,997	2,400	2,598	2,914	3,210	3,596

(iii) *Effective or Real Wage Index-numbers, Adult Males,* 1911 *to* 1950—*States.* In obtaining the effective wage index-numbers in the following table, the nominal wage index-numbers shown above have been divided by the corresponding retail price index-numbers for the capital city and multiplied by 1,000. Since the " C " series index-numbers were not compiled for periods prior to November, 1914, it has been assumed that fluctuations between 1911 (the base of the table) and 1914 in the " C " series would have been similar to the fluctuations observed in the " A " series. A table showing effective or real wage index-numbers from 1901 to 1937 measured in terms of purchasing power over the " A " series regimen appeared in earlier issues of the Official Year Book, *see* No. 37, page 473.

EFFECTIVE OR REAL WAGE INDEX-NUMBERS: ADULT MALES (FULL WORK).

Measured in terms of purchasing power over the " C " series regimen.

(*Base : Weighted Average Real Wage in Australia in* 1911 = 1,000.)

State.	1911.	1914.	1921.	1929.	1931.	1939.	1941.	1946.	1947.	1948.	1949.	1950.
N.S. Wales ..	..	925	1,073	1,130	1,210	1,207	1,187	1,258	1,316	1,359	1,365	1,380
Victoria ..	..	954	1,084	1,164	1,200	1,180	1.187	1,260	1,312	1,355	1,363	1,381
Queensland ..	..	1,022	1,227	1,290	1,336	1,306	1,240	1,314	1,367	1,379	1,407	1,453
South Australia	..	914	1,031	1,099	1,137	1,147	1,158	1,229	1,291	1,341	1,362	1,388
W. Australia ..	..	1,043	1,096	1,152	1,189	1,308	1,279	1,296	1,348	1,377	1,379	1,426
Tasmania ..	..	902	984	1,108	1,120	1,153	1,142	1,237	1,285	1,334	1,338	1,371
Australia ..	1,000	948	1,087	1,151	1,210	1,211	1,194	1,263	1,318	1,357	1,367	1,389

In the table above, the effective wage index-numbers are computed to the one base, that of Australia for 1911. As the index-numbers are comparable in all respects, comparisons may be made as to the increase or decrease in the effective wage index-number for any State over any period of years.

(iv) *Effective or Real Wage Index-numbers,* 1901 *to* 1950—*Australia.* In the following table similar index-numbers are given for Australia as a whole under both the "A" and "C" series. These are obtained by dividing the nominal wage index-numbers for Australia for the year concerned by the corresponding retail price index-numbers for the six capital cities and multiplying by 1,000.

NOMINAL AND EFFECTIVE OR REAL WAGE INDEX-NUMBERS (FULL WORK).

(*Base : Weighted Average Real Wage in Australia in* 1911 = 1,000.)

Year.	Nominal Weekly Wage Index-numbers.	Retail Price Index-numbers.		Effective or Real Wage Index-numbers, i.e., Relative Purchasing Power over Regimen of—	
		"A" Series (Food, Groceries and Rent of all Houses)	"C" Series (All Items).	"A" Series.	"C" Series.
1901	848	880	..	964	..
1911	1,000	1,000	(1,000)	1,000	(1,000)
1916	1,144	1,324	1,319	864	867
1921	1,826	1,697	1,680	1,076	1,087
1926	1,914	1,786	1,677	1,072	1,141
1931	1,752	1,479	1,448	1,185	1,210
1932	1,639	1,403	1,377	1,168	1,190
1933	1,584	1,345	1,335	1,178	1,187
1934	1,590	1,385	1,355	1,148	1,173
1935	1,612	1,420	1,380	1,135	1,169
1936	1,638	1,461	1,409	1,121	1,162
1937	1,707	1,507	1,448	1,133	1,178
1938	1,799	(a)	1,488	(a)	1,209
1939	1,846	(a)	1,526	(a)	1,210
1940	1,889	(a)	1,588	(a)	1,190
1941	1,997	(a)	1,673	(a)	1,194
1942	2,164	(a)	1,809	(a)	1,196
1943	2,309	(a)	1,876	(a)	1,231
1944	2,326	(a)	1,867	(a)	1,246
1945	2,339	(a)	1,868	(a)	1,252
1946	2,400	(a)	1,900	(a)	1,263
1947	2,598	(a)	1,971	(a)	1,318
1948	2,914	(a)	2,148	(a)	1,357
1949	3,210	(a)	2,349	(a)	1,367
1950	3,596	(a)	2,589	(a)	1,389

(a) Not available.

NOTE.—For years prior to 1914 the nominal wage index-numbers relate to the end of the year only, but from 1914 onwards these figures, in addition to those for retail prices, are averages for the whole year.

§ 3. Basic Wages in Australia.

1. **General.**—Basic wages in Australia are fixed by various industrial tribunals operating under Commonwealth and State Arbitration Acts, and are varied from time to time according to changes in cost of living, constitution of the family unit, etc. In the industrial legislation of New South Wales, Queensland, South Australia and Western Australia, provision is made for the tribunals appointed under the Acts to determine the basic rates of wage to be paid to adult unskilled workers. In Tasmania provision for the

declaration of a basic rate of wage is not included in the industrial Acts in force. The Wages Board system operates in this State, and each Wages Board determines the rate of wage to be paid to the unskilled worker when the determination for an industry or calling is under review. In Victoria, however, while the same Wages Board system exists, the Factories Act obliges Wages Boards to adopt Commonwealth Award rates and conditions "which such Boards are under the Factories and Shops Acts empowered to include in their determinations." As the power of the Commonwealth Arbitration Court is limited by the Constitution to the settlement, by conciliation and arbitration, of industrial disputes extending beyond the limits of any one State, no similar provision respecting the determination of a basic wage is to be found in the Commonwealth Conciliation and Arbitration Act. In practice, the Court does declare a Commonwealth basic wage, and uses the wage so declared as a basis for all awards made by it in the exercise of its jurisdiction, except in the case of awards made for Whyalla and Iron Knob where the basis of awards has, since 1947, been the South Australian "living" wage plus 5s. That is, upon a new basic wage being declared, the awards made in the settlement of all interstate industrial disputes are re-opened and amended accordingly. In addition to the "basic" wage, these tribunals also determine what is known as the "secondary" wage—"the extra payment to be made for trained skill or other exceptional qualities necessary for an employee exercising the functions required."* The term "minimum" wage, as distinct from the "basic" wage is used to express the lowest rate payable in a particular industry, and is either equal to, or greater than, the "basic" wage.

2. **The Commonwealth Basic Wage.**—(i) *Early Judgments.* The doctrine of a basic wage was propounded as far back as 1890 by Sir Samuel Griffith, Premier of Queensland, and the same principle was enunciated in the New South Wales Arbitration Court in somewhat similar terms by Mr. Justice Heydon in 1905. In spite, however, of these pronouncements and the fact that wage-fixing tribunals had been in operation as early as 1896 (in the State of Victoria), it was not until 1907 that the first basic wage, as such, was declared by a Court in Australia. This was made by Mr. Justice Higgins, President of the Commonwealth Court of Conciliation and Arbitration, and it was defined as the lowest wage which can be paid to an unskilled labourer on the basis of "the normal needs of an average employee regarded as a human being living in a civilized community."† This declaration was made by way of an order in terms of Section 2 (*d*) of the Excise Tariff 1906 in the matter of an application by H. V. McKay, of the Sunshine Harvester Works, Victoria, from which was derived the title of the "Harvester Wage" by which it is popularly known. The rate of wage declared in this case was 7s. per day or £2 2s. per week for Melbourne, the amount considered reasonable for "a family of about five."‡ The constituent parts of this amount were £1 5s. 5d. for food, 7s. for rent, and 9s. 7d. for all other expenditure.

The "Harvester" basic rate was adopted by the Commonwealth Arbitration Court for incorporation in its awards, and practically the same rates continued until 1913, when the Court took cognizance of the retail price index-numbers, covering food and groceries and rent of all houses ("A" series), for the 30 more important towns of Australia, which had been published by the Commonwealth Statistician for the first time in the preceding year. These index-numbers had been taken back to 1901, with the year 1911 as base, and disclosed not only considerable percentage increases since 1907, but also large disparities in the relative purchasing power of money in the various towns. The basic rates for towns were thereafter fixed largely on their respective index-numbers, taking the index-number 875 for Melbourne for the year 1907 as being equivalent to the "Harvester" rate of 42s. per week, or the base of the index (1,000) as being equivalent to 48s. per week. Exceptions were made in the case of many country towns, where certain "loadings" were applied to counterbalance their lower index-numbers due to cheaper rentals.§

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* Mr. Justice Higgins—*A New Province of Law and Order.*

† Ibid.

‡ *See* page 414 for Court's interpretation in 1940 Basic Wage Inquiry of the "family unit".

§ As these indexes covered only about 60 per cent. of household expenditure, a low index due to low rentals would wrongly presume low costs in the remaining uninvestigated 40 per cent. of household expenditure and *vice versa*.

In 1922 an amount known as the "Powers' 3s."* was added as a general "loading" to the weekly wage for the purpose of securing to the worker during a period of rising prices the full equivalent of the "Harvester" standard. In the same year the system was instituted of making regular quarterly adjustments of the basic wage to accord with variations in purchasing power as disclosed by the "A" Series retail price index-numbers, and of basing the adjustments on the index-number for the quarter in place of that for the previous calendar year or the year ended the preceding quarter.

The Commonwealth Conciliation and Arbitration Act provides that the "basic" wage, or any alteration therof including the principles on which it is computed, together with any variation or interpretation of any award involving any such alteration, shall be considered by a Court constituted by the Chief Judge and not less than two other Judges, and must be approved by a majority of the members of that Court. By a judgment of the High Court on 21st April, 1933, the "basic" wage is taken to mean, for the foregoing purpose, not only the "Harvester" wage but any "loadings" forming part of the primary wage of an unskilled labourer. A "loading" is defined as an addition to the "basic" wage as compensation for some peculiar condition of labour or environment, and not by way of "margin for skill". The wage payable for skilled labour is assessed on the basis of the "basic" wage, including "loadings".

The adequacy or otherwise of the "Harvester" standard has been the subject of much discussion, the author of the judgment himself urging on several occasions the need for its review. The abnormal conditions during and for some time after the 1914–18 War hindered such a review which was regarded as less urgent by reason of the fact that wages throughout Australia were being automatically adjusted to changes in retail prices. A Royal Commission (referred to later) was appointed in 1919 to assess a basic wage, but its recommendations were not carried out.

No change was made in the method of fixation and adjustment of the basic wage until the onset of the depression which began to be felt severely during 1930. Applications were then made to the Court by employers for some greater measure of reduction of wages than that afforded by the automatic adjustments to falling retail prices. An account of the proceedings which resulted in the Court reducing all wages under its jurisdiction by 10 per cent. from 1st February, 1931, is given in *Labour Report* No. 23, page 74. Reference is also made to the Court's refusal in June, 1932, and May, 1933, to remove this special reduction.

(ii) *Basic Wage Inquiry*, 1934. The "Harvester" standard, adjusted to retail price variations, continued as the theoretical basis of the wage of the Commonwealth Court until 30th April, 1934, when it was superseded by a judgment delivered on 17th April, 1934, full particulars of which appear in Official Year Book No. 29, 1936, page 545. The basic wage declared on this occasion (subsequently referred to as the "Needs" Basic Wage 1934) was as follows for the six capital cities :—

	s. d.		*s. d.*
Sydney	67 0	Adelaide	64 0
Melbourne	64 0	Perth	66 0
Brisbane	61 0	Hobart	67 0

Six Capital Cities, 65s. 0d.

A comparison for the capital cities of the basic rates granted by the judgment and those ruling under previous practices of the Court is given in Official Year Book No. 38, p. 426.

The 10 per cent. special reduction in wages referred to above ceased to operate upon the introduction of the new rates, and the basis of the periodical adjustments to retail price variations was transferred from the "A" and the "D" Series to the "C" Series of index-numbers which covers Food and Groceries, Rent of 4-roomed and 5-roomed

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* Awarded by Mr. Justice Powers in the Gas Workers' Case.

Houses, Clothing, Fuel, Light, Household Utensils, Household Drapery, Fares, and other Miscellaneous household requirements. The base of the index (1,000) was taken by the Court as equal to 81s. per week. This gave the above rates for the capital cities on the basis of their respective index-numbers. In effect, the new rate for the six capital cities was the same as that previously paid under the "A" Series, without the "Powers' 3s." and without the 10 per cent. reduction. Certain towns gained and others lost in comparison with rates under the "A" Series, owing to the different relationship of towns under the "A" and the "C" Series.

(iii) *Basic Wage Inquiry*, 1937. In May, 1937, the Commonwealth Court heard an application by the combined unions for an increase in the basic wage. The unions asked that the equivalent of the base (1,000) of the "C" Series Index be increased from 81s. to 93s. which on current index-numbers would have represented an average increase of about 10s. per week. The hearing extended from 10th May to 4th June, 1937, and the Court delivered judgment on 23rd June. The chief features of the judgment were :—

(*a*) Various amounts were added to the basic wage not as an integral, and therefore adjustable, part of that wage, but as "loadings" on the rates payable under the "shilling table" as determined by the 1934 judgment. The latter was referred to in the judgment as the "needs" portion of the total resultant basic wages. The "loadings" and resultant "total basic wages" for the six capital cities were as follows :—

City.	"Needs" Basic Wage.	"Loading."	Total Basic Wage.
	s. d.	*s. d.*	*s. d.*
Sydney	72 0	6 0	78 0
Melbourne	69 0	6 0	75 0
Brisbane	68 0	6 0	74 0
Adelaide	68 0(*a*)	4 0	72 0
Perth	70 0(*a*)	4 0	74 0
Hobart	70 0(*b*)	4 0	74 0
Six Capitals	70 0	5 0	75 0

(*a*) An additional 1s. was actually being paid under the "2s. minimum adjustment" provision.
(*b*) One shilling less was being paid under the "2s. minimum adjustment" provision.

(*b*) The basis of the adjustment of wages in accordance with the variations shown by retail price index-numbers was transferred from the "C" series to a special "Court" series based upon the "C" series (*see* page 393).

(*c*) Female and junior rates were left for adjustment by individual Judges when dealing with specific awards.

The main parts of the judgment are reprinted in Official Year Book No. 30, and in *Labour Report* No. 28, p. 77.

(iv) "*Lag*" *in Adjustments*. The Commonwealth Court on 10th December, 1939 heard an application by the unions that the date of adjustment of the basic wage in accordance with the variations in the "Court" Series of index-numbers be brought nearer to the period upon which the variation was based. In a judgment delivered on the same day the Court directed that such adjustments be made one month earlier. The effect, therefore, was to make future adjustments operative from the beginning of the first pay-period to commence in a February, a May, an August or a November.

(v) *Basic Wage Inquiry*, 1940. On 5th August, 1940 the Full Court commenced the hearing of an application by the combined unions for an increase in the existing basic wage by raising the value of 1,000 (the base of the "C" Series Index upon which the "Court" Series are based) from 81s. to 100s. per week, and the abolition of the existing "Prosperity Loadings", which would be regarded as incorporated in the new rate mentioned. Judgment was delivered on 7th February, 1941, the Court unanimously refusing to grant any increase, and deciding that the application should not be dismissed but stood over for further consideration after 30th June, 1941. The application was refused mainly owing to the uncertainty of the economic outlook under existing war conditions (*see* (vi) following). Extracts from the judgment were published in earlier issues of the Official Year Book (*see* No. 38, p. 428) and the *Labour Report.*

In regard to the popular idea that the basic wage of the Commonwealth Court of Conciliation and Arbitration was identified with a specific family unit, the Chief Judge made the following statements to clarify the position: "The Court has always conceded the 'needs' of an average family should be kept in mind in fixing a basic wage. But it has never as the result of its own inquiry specifically declared what is an average family or what is the cost of a regimen of food, clothing, shelter and miscellaneous items necessary to maintain it in frugal comfort, or that a basic wage should give effect to any such finding. In the end economic possibilities have always been the determining factor . . . . . . What should be sought is the independent ascertainment and prescription of the highest basic wage that can be sustained by the total of industry in all its primary, secondary and ancillary forms . . . . More than ever before wage fixation is controlled by the economic outlook".

The Chief Judge also suggested that the more logical system would be to grade the basic wage according to family responsibilities by means of a comprehensive system of child endowment, and that if a scheme of this nature were established, as recently announced by the Commonwealth Government,* future fixations of the basic wage would be greatly simplified.

(vi) "*Interim*" *Basic Wage Inquiry*, 1946. As the result of (*a*) an application made on 30th October, 1946 (during the course of the Standard Hours Case) by the Attorney-General for the Commonwealth for the restoration to the Full Court List of certain adjourned 1940 basic wage applications (*see* (v) above), (*b*) a number of fresh cases which had come to the Court since 1941, and (*c*) an application by the Australasian Council of Trade Unions on behalf of the unions for an "interim" basic wage declaration, the Court, on 25th November, 1946, commenced the hearing of this case. The case ended on 10th December, 1946 and judgment was delivered on 13th December, 1946 whereby an increase of 7s. per week was granted in the "needs" portion of the basic wage then current and based on the weighted average "Court" index-number for the Six Capital Cities (as a whole) for the September quarter, 1946. This had the effect of raising the base (1923-27) index-number of the "Court" Series Index from 81.0 to 87.0, the corresponding "needs" basic wage from 81s. to 87s. per week, and the current rate for the Six Capital Cities as a whole from 93s. to 100s. per week. All "loadings" on the basic wage were retained at their existing amounts until otherwise ordered by the Court.

The immediate monetary effect was to increase by 7s. per week the basic wage in each of the capital cities (with the exception of Hobart, where the increase was 6s.), and in most of the other towns or combinations of towns—the position of the index-number for a town in the new Automatic Adjustment Scale (on the new base rate of 87s.) determining whether the increase was 7s. or 6s. The date of operation for the majority of workers affected was the beginning of the first pay-period commencing in the month of December, 1946, in certain industries as from 1st December, 1946 and for certain other groups of workers from dates fixed by Judges dealing with individual applications for the increase.

Further details of this judgment may be obtained from *Labour Report* No. 38, page 79.

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* Legislation covering a scheme to become operative on 1st July, 1941, was actually passed by the Commonwealth Parliament on 3rd April, 1941—*see* page 425 for details.

(vii) *Basic Wage Inquiry* 1949–50. This case really finalized the case begun in 1940 and continued in 1946 (*see* above). After certain procedural matters had been disposed of in February, 1949, and later dates, the general hearing of the Unions' claims was commenced on 17th May, 1949. Evidence was completed on 22nd August, 1950, and the three judges (Kelly, *C.J.*, Foster and Dunphy, *J.J.*) delivered separate judgments on 12th October, 1950.

In 1946 the Chief Judge ruled that the claim for an increase in the basic wage should be heard concurrently with the "40-Hour Week" claims then before the Court. The Unions, however, objected to this course being followed, and, on appeal to the High Court, that Court in March, 1947, gave a decision which obliged the Arbitration Court to proceed with the "Hours" case to its conclusion without the interpolation of the contemporaneous hearing of the Basic Wage case.*

In the judgments of 12th October, 1950, which were in the nature of general declarations, a majority of the Court (Foster and Dunphy, *J.J.*) was of the opinion that the basic wage for adult males should be increased by £1 per week, and that for adult females should be 75 per cent. of the adult male rate. Kelly, *C.J.*, dissenting, considered that no increase either in the male or female wage was justified.

On 24th October, 1950, and 23rd November, 1950, the Court made further declarations regarding the "Prosperity Loading" of 1937 (*see* page 413) which was being paid at rates between 3s. and 6s. per week according to localities, etc., and the future basis of quarterly adjustments. The "Prosperity Loading" was standardized at a uniform rate of 5s. per week for all towns and was declared to be an adjustable part of the basic wage. The Court also declared that the "War Loading" was not part of the basic wage.

With regard to other "loadings" the Court on 17th November, 1950 proceeded to examine the individual awards in the claims before it, for the purpose of determining to what extent such "loadings" formed part of the basic wage. The members of the Court, earlier in the hearing, had given interim opinions for the guidance of the parties as to the meaning of the definition of "basic wage" in section 25 of the Conciliation and Arbitration Act, the majority view being that it would be necessary to examine each award and to ascertain either from the award itself or other sources whether "loading" additions were part of the basic wage or not. It should be noted that any "loading" declared to be part of the basic wage ceased to be paid as a separate entity, but apart from the special case of the Australian Capital Territory there were very few "loadings" which fell within this category.

The first payment of the new rates was expressed to operate from the beginning of the first pay period in December, 1950, by way of a flat-rate addition of £1 5s. in all cases to the "needs" rate (2nd series) on the indexes of September quarter, 1950. This £1 5s. comprised the £1 addition announced on 12th October, 1950, and the "Prosperity Loading" (first instituted in 1937) now standardized at 5s. in all relevant cases.

The Court decided to create a new Court Series Index for automatic variation of the new basic wage in accordance with future variations in retail prices. The first automatic quarterly adjustment of the new basic wage on this basis became operative from the beginning of the first pay period commencing in February, 1951, on the basis of the index numbers for the December quarter, 1950.

The basic wage rate for the Six Capital Cities (Weighted Average) arrived at by the Court after applying the foregoing declarations was £8 2s., comprising £6 17s. "needs" (2nd Series) plus 5s. uniform "Prosperity Loading" plus the £1 addition. For the purpose of determining the corresponding rates to be paid in respect of individual cities and towns, and combinations thereof, and their future automatic adjustment, this new rate of £8 2s. was equated to the "C" Series retail price index-number 1572 for the Six Capital Cities (Weighted Average) for September quarter, 1950. From this was derived the new "Court" Index—in future to be known as the "Court" Index (Third Series)—with 103.0 equated to 1000 in the "C" Series Index.

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* Printing Industry Employees Union of Australia *v.* Victorian Chamber of Manufactures. 73 C.L.R. 259.

The basic wage rates operative in November, 1950, are shown below in comparison with those operative from the beginning of the first pay-period commencing in December, 1950 :—

Capital City.	Rates Operative in November, 1950.			Total Rate Operative in December, 1950.(a)	Increase (Column 5 less Column 4).
	" Needs " Rate.	" Prosperity " Loading.	Total.		
(1)	(2) s. d.	(3) s. d.	(4) s. d.	(5) s. d.	(6) s. d.
Sydney	140 0	6 0	146 0	165 0	19 0
Melbourne	137 0	6 0	143 0	162 0	19 0
Brisbane	129 0	6 0	135 0	154 0	19 0
Adelaide	133 0	4 0	137 0	158 0	21 0
Perth	135 0	4 0	139 0	160 0	21 0
Hobart	135 0	4 0	139 0	160 0	21 0
Six Capitals	137 0	5 0	142 0	162 0	20 0

(a) Comprising " Needs " rate shown in column (2) plus 20s. addition of 12th October, 1950 and uniform Prosperity Loading " of 5s.

(viii) *Commonwealth Basic Wage Rates.* The basic wage rates of the Commonwealth Court for adult males and females operative as from the beginning of the first pay period commencing in November, 1951, were as shown in the following table :—

COMMONWEALTH BASIC WAGE—WEEKLY RATES. (*a*).

City or Town.	Rate of Wage. Males. s. d.	Rate of Wage. Females. s. d.
New South Wales—		
Sydney	207 0	155 0
Newcastle (*b*) ..	207 0	155 0
Port Kembla-Wollongong (*b*) ..	207 0	155 0
Broken Hill ..	209 0	156 6
Five Towns (*d*) ..	206 0	154 6
Victoria—		
Melbourne ..	199 0	149 0
Geelong (*c*) ..	199 0	149 0
Warrnambool (*c*) ..	199 0	149 0
Mildura (*c*) ..	199 0	149 0
Yallourn (*c*)	205 6	154 0
Five Towns (*d*) ..	199 0	149 0
Queensland—		
Brisbane ..	185 0	138 6
Five Towns (*d*) ..	186 0	139 6
South Australia—		
Adelaide ..	195 0	146 0
Whyalla and Iron Knob	200 0	150 0
Five Towns (*d*)	195 0	146 0
Western Australia—		
Perth	197 0	147 6
Kalgoorlie ..	205 0	153 6
Geraldton ..	206 0	154 6
Five Towns (*d*)	198 0	148 6
Tasmania—		
Hobart	199 0	149 0
Launceston ..	201 0	150 6
Queenstown ..	195 0	146 0
Five Towns (*d*)	199 0	149 0
Thirty Towns (*d*) ..	200 0	150 0
Six Capital Cities (*d*) ..	200 0	150 0

(*a*) Operative from the beginning of the first pay period commencing in November, 1951. (*b*) Based on Sydney. (*c*) Based on Melbourne. (*d*) Weighted average.

The rate for provincial towns, other than those mentioned above, is 3s. less than that of their respective capital cities.

The following table shows the movements of this wage in all capital cities and the six capital cities as a whole during the years 1939 to 1951.

BASIC WEEKLY WAGE RATES (*a*), CAPITAL CITIES, PRESCRIBED BY COMMONWEALTH COURT OF CONCILIATION AND ARBITRATION FOR ADULT MALES.

Date Operative.(*b*)	Sydney.	Melbourne.	Brisbane.	Adelaide.	Perth.	Hobart.	Six Capitals.
	s. d.	*s. d.*	*s. d.*	*s. d.*	*s. d.*	*s. d.*	*s. d.*
1939—							
September ..	81 0	81 0	76 0	78 0	77 0	77 0	79 0
1940—							
November ..	85 0	84 0	79 0	80 0	80 0	81 0	83 0
1941—							
November ..	89 0	88 0	84 0	84 0	85 0	85 0	87 0
1942—							
November ..	97 0	97 0	91 0	93 0	91 0	92 0	95 0
1943—							
November ..	99 0	98 0	93 0	94 0	94 0	95 0	97 0
1944—							
November ..	99 0	98 0	93 0	93 0	94 0	94 0	96 0
1945—							
November ..	99 0	98 0	93 0	93 0	94 0	94 0	96 0
1946—							
November ..	101 0	99 0	94 0	95 0	95 0	97 0	98 0
December ..	108 0	106 0	101 0	102 0	102 0	103 0	105 0
1947—							
November ..	112 0	109 0	105 0	106 0	106 0	107 0	109 0
1948—							
November ..	122 0	120 0	115 0	116 0	116 0	118 0	119 0
1949—							
February ..	124 0	123 0	118 0	119 0	118 0	121 0	122 0
May	127 0	125 0	119 0	121 0	120 0	124 0	124 0
August ..	130 0	128 0	122 0	124 0	126 0	127 0	127 0
November ..	132 0	130 0	125 0	126 0	129 0	128 0	129 0
1950—							
February ..	135 0	134 0	127 0	129 0	131 0	131 0	133 0
May ..	138 0	137 0	129 0	131 0	133 0	131 0	135 0
August ..	142 0	140 0	132 0	134 0	136 0	135 0	138 0
November ..	146 0	143 0	135 0	137 0	139 0	139 0	142 0
December ..	165 0	162 0	154 0	158 0	160 0	160 0	162 0
1951—							
February ..	173 0	170 0	159 0	166 0	166 0	165 0	169 0
May	180 0	177 0	166 0	171 0	176 0	173 0	176 0
August ..	193 0	189 0	175 0	184 0	188 0	187 0	189 0
November ..	207 0	199 0	185 0	195 0	197 0	199 0	200 0

(*a*) Rates include "prosperity loadings" where applicable. (*b*) Generally from the beginning of the first pay period commencing in the month indicated.

3. **Australian Territories.**—A full account of the bases upon which the basic wages are determined in the Australian Capital Territory and in the Northern Territory (both north and south of the 20th parallel of South Latitude) may be found on pages 89 to 96 of *Labour Report* No. 39 for 1950.

In the Australian Capital Territory the rates payable as from the beginning of the first pay period in November, 1951, were £10 6s. for adult males and £7 14s. 6d. for adult females.

In the Northern Territory there are two basic wages operating, one in respect of areas north of the 20th parallel of South Latitude, generally referred to as the "Darwin" rate and the other in respect of areas south of that parallel and extending down to the 26th parallel (the "Port Augusta" rate).

The basic wage rates payable as from the beginning of the first pay period in November, 1951, were :—" Darwin " rate, adult males, £10 10s., adult females, £7 17s. 6d. ; " Port Augusta " rate, adult males, £10 10s., and adult females, £7 17s. 6d.

In addition to the above rates special loadings were prescribed in Northern Territory awards following the fixation of the new basic wage rates operative from November, 1951.

4. **Basic Wage Rates for Females.**—Reference should be made to *Labour Report* No. 39, 1950 (page 86) for a statement of the general principles followed by the Commonwealth Court of Conciliation and Arbitration in fixing basic wage rates for females in relation to those of males.

5. **State Basic Wages.**—(i) *New South Wales.* The first determination under the New South Wales Industrial Arbitration Act of a standard "living" wage for adult male employees was made on 16th February, 1914, by the Court of Industrial Arbitration. The Board of Trade was established in 1918 with power to determine the "living" wage for adult male and female employees in the State. The Board made numerous declarations from 1918 to 1925, but ceased to function after the Industrial Arbitration (Amendment) Act 1926 established the Industrial Commission of New South Wales, which exercised the powers of the Board of Trade as from 15th April, 1926.

The adult male rate was determined on the family unit of a man, wife and two children from 1914 to 1925 ; a man and wife only in 1927, with family allowances for dependent children ; and a man, wife and one child in 1929, with family allowances for other dependent children. With the adoption in 1937 of the Commonwealth basic wage referred to below, however, the identification of a specified family unit with the basic wage disappeared.

Employees in rural industries are not covered by the rates in the table referred to below ; a wage for rural workers of £3 6s. per week was in force for twelve months from October, 1921, and a rate of £4 4s. operated from June, 1927, to December, 1929, when the power of industrial tribunals to fix a living wage for rural workers was withdrawn.

A table showing the variations in the living wages determined by the industrial tribunals of New South Wales up to 27th April, 1937 was published in previous issues of the Official Year Book (*see* No. 37, page 481). Since 27th April, 1937, changes have been made automatically in accordance with the procedure outlined in the next paragraph, and the latest current rate payable will be found in the table in sub-par. vi., page 424.

Following on the judgment of the Commonwealth Arbitration Court referred to on page 413, the Government of New South Wales decided to make the State Basic Wage accord with the Commonwealth rates ruling in the State, and secured an amendment of the Industrial Arbitration Act to give effect thereto. The Act (No. 9 of 1937) was passed on 7th October, 1937, and came into operation from the commencement of the first pay period in October, practically from 1st October, 1937. The general principles laid down by the Commonwealth Court were followed as closely as practicable, and provision was made for the automatic adjustment of wages in conformity with variations in retail prices as shown by the Commonwealth Court's " All Items " Retail Price Index-numbers, shortly known as the " Court " Series of Index-numbers. The Commonwealth Court's principle of treating the " prosperity loadings " as a separate and non-adjustable part of the total basic wage was adopted. The basic rate for adult females was fixed at 54 per cent. of the adult male rate to the nearest sixpence. The provisions of the main Acts for the periodic declaration of the living wage by the Industrial Commission were repealed, but the amending Act placed on the Commission the responsibility of altering all awards and agreements in conformity with the intentions of the new Act ; to define boundaries within which the various rates are to operate ; and to specify the appropriate " Court " Series retail price index-numbers to which they are to be related.

The judgment of the Commonwealth Court of Conciliation and Arbitration on 12th October, 1950 necessitated attention by the legislature to the clauses of the Industrial Arbitration Act providing for the automatic adjustment of rates of pay based on the Commonwealth Basic Wage Judgment of 23rd June, 1937.

An amendment to the Industrial Arbitration Act was assented to on 23rd November, 1950 which empowered the Industrial Commission to vary the terms of awards and industrial agreements affecting male rates of pay, to the extent to which the Commission thought fit, to give effect to the alteration in the basic wage for adult males made by the Commonwealth judgment. In the case of female rates of pay the Commission was empowered to review the terms of awards and industrial agreements and to vary such terms as in the circumstances the Commission decided proper, but no variation was to fix rates of pay for female employees lower than the Commonwealth basic wage for adult females.

To facilitate the work of the Commission, awards were divided into separate classes, and orders issued regarding the variations to be made to those in each class. The rates for adult males were increased by the same amounts as the corresponding Commonwealth rates, with special provision to cover the cases of apprentices, casual workers and employees on piecework. In deciding the variation for female employees the Commission prescribed an increase in the total wage rate (i.e. basic wage plus marginal rate) of £1 4s. 6d. per week subject to the statutory provision (incorporated in the amendment of 23rd November) that the minimum total rate was to be not less than the basic wage for adult females prescribed in Commonwealth awards, that is, at least 75 per cent. of the corresponding male basic wage rate.

In the judgment delivered on 9th March, 1951, giving reasons for its decision on female rates, the Commission decided that the basic wage for adult females prescribed by the Commonwealth Court in reality included a portion "due to secondary considerations," and could not be considered a "reasonable and proper basic wage for the assessment of rates of female employees under the Industrial Arbitration Act".

In discussing the composition of the amount of £6 3s. 6d., which the Commonwealth Court in its judgment of October, 1950 had prescribed as the basic wage for adult females in New South Wales, the Commission stated "After giving the matter fullest consideration, we think in the circumstances it is reasonable to allocate £1 of the said sum of £6 3s. 6d. to secondary considerations and to regard the amount of £1 4s. 6d. as an addition proper to be made to the pre-existing basic wages in New South Wales of £3 19s. The total, £5 3s. 6d., becomes therefore the true female basic wage in New South Wales. To state the decision the Commission has reached in other words, the commission assesses the true basic wage or foundational wage which it is proper to apply when adjusting, or in the course of making future awards assessing rates of female employees under the Industrial Arbitration Act, as £5 3s. 6d. per week."

As a consequence of the overriding statutory requirement that no rate for adult females in State awards shall fall below the Federal basic wage for adult females, the amount of the quarterly adjustments to the female basic wage for changes in the "Court" series index numbers is the same in Federal and State awards.

By an amendment of the Industrial Arbitration Act in June, 1951, the differentiation in rates for the basic wage in different districts and for employees under Crown awards was eliminated as a general rule, making the basic wage throughout the State equal to that paid in Sydney, with the main exception of the Broken Hill district where a different basic rate still prevails.

The basic wage rates applicable in the metropolitan area from the beginning of the first pay period commencing in November, 1951, were £10 7s. per week for adult males and £7 15s. for adult females.

The principle of supplementing wages by a payment in respect of dependent children under fourteen years of age was operative in New South Wales from July, 1927 until superseded by the Commonwealth Government Scheme operative from 1st July, 1941, and a brief account of the main features of the system appears in Official Year Book No. 37, pp. 485–6.

(ii) *Victoria and Tasmania.* A State basic rate of wage is not declared in Victoria and Tasmania. In these States the Wages Board system of wage fixation is in operation, and each Board determines the minimum rate of wage to be paid in the industry or calling under review. In the majority of cases the practice of the Commonwealth Arbitration Court of adjusting wages in accordance with variations in retail prices has been followed in the past by these bodies. In the case of Victoria, by amendments of the Factories and Shops Act No. 4275 of 1934 and No. 4461 of 1936, it is obligatory on all Wages Boards to adopt provisions of Commonwealth Awards "which such Boards are empowered under the Factory and Shops Acts to include in their determinations". The Secretary of Labour is also empowered under this Act to make adjustments of wages according to variations in retail price index-numbers without calling the Board together.

In accordance with the decisions of the Commonwealth Court of Conciliation and Arbitration to increase the male and female basic wages from December, 1950 (*see* page 415) the Wages Boards in both States met and incorporated the new Commonwealth rates in their determinations. The Commonwealth weekly adult male rate operative from the beginning of the first pay period commencing in November, 1951, was £9 19s. for Melbourne and £9 19s. for Hobart. Female basic wages are 75 per cent. of these rates.

(iii) *Queensland.* The first formal declaration by the Industrial Arbitration Court in this State of a basic wage was gazetted on 24th February, 1921. Prior to this declaration the rate of £3 17s. per week for adult males had been generally recognized by the Court in its awards as the basic or living wage. The basic wage is nominally intended to provide for the needs of a man, his wife and three children. The variations in the adult basic wages determined by the Industrial Arbitration Court up to 1st April, 1937, were published in previous issues of the Official Year Book (*see* No. 37, page 482). Variations since that date are shown below :—

BASIC WAGE VARIATIONS IN QUEENSLAND. (*State Jurisdiction.*)

Date of Operation.	Adult Basic Wage.					
	Male.			Female.		
	£	s.	d.	£	s.	d.
1st April, 1938	4	1	0	2	3	0
7th August, 1939	4	4	0	2	5	0
31st March, 1941	4	9	0	2	8	0
4th May, 1942 (*a*)	4	11	0	2	9	6
23rd December, 1946 (*b*)	5	5	0	3	0	6
7th December, 1950 (*b*)	7	14	0	5	2	6

(*a*) Quarterly adjustments provided by judgment of 21st April, 1942—*see* below. (*b*) Consequent upon basic wage increases granted by the Commonwealth Court of Conciliation and Arbitration.

The rates shown above are applicable throughout the Southern Division (Eastern District), which includes the metropolitan area ; allowances are added for the following divisions—Northern (Eastern District), 10s. ; Northern (Western District), 17s. 4d. ; Mackay, 5s. 6d. ; and Southern (Western District), 7s. 4d. Half of these allowances are granted to females.

On 15th April, 1942, the Court declared the rates operative from 31st March, 1941 as adequately meeting the requirements of Section 9 of the Industrial Conciliation and Arbitration Act 1932, having regard to the level of the "C" Series (All Items) Retail Price Index for Brisbane for the December quarter, 1941. In order to ensure, however, that it would continue to do so under present exceptional conditions, the Court decided to make a quarterly declaration of the basic wage on the basis of the variations in the "cost of living" as disclosed by the "C" Series Index for Brisbane, commencing with the figures for the March quarter, 1942. This declaration was duly made by the Court on 21st April, 1942, at the rates of £4 11s. for adult males, and £2 9s. 6d. for adult females. Since then, quarterly adjustments have been made to the basic wage in accordance with changes in the "C" Series (All Items) Index.

In view of the "interim" basic wage judgment of the Commonwealth Court of Conciliation and Arbitration in December, 1946 (*see* page 414), the Queensland Industrial Court granted increases of 7s. and 5s. in the basic wages for adult males and adult females respectively to operate from 23rd December, 1946.

Following the decision of the Commonwealth Court of Conciliation and Arbitration to increase the male and female basic wages from December, 1950 (*see* page 415) the Industrial Arbitration Court of Queensland conducted an inquiry as to what change should be made to the State basic wage for Queensland. By a majority decision on 30th November, 1950, the Industrial Court granted an increase of 15s. weekly to both adult males and adult females thus increasing the metropolitan rates to £7 14s. per week and £5 2s. 6d. per week respectively operative from 7th December, 1950. The new male rate of £7 14s. corresponded to the Federal basic wage for the Brisbane metropolitan area and this parity has since been maintained although the dates on which the quarterly changes become operative do not necessarily correspond with those prescribed for Commonwealth awards. The new female rate of £5 2s. 6d. represents 66 per cent. of the male rate instead of 63 per cent. (approximately) as previously, and this 66 per cent. determines the basic wage payable to adult females. The judgment of the Queensland Industrial Court may be found in the supplement to the Queensland Industrial Gazette, Vol. 35, No. 4, page 1253.

The rates payable in accordance with regular quarterly variations from 29th October, 1951, were £9 5s. for adult males and £6 3s. for adult females.

(iv) *South Australia.* The Industrial Code 1920–1950 provides that the Board of Industry shall after public inquiry declare the living wages to be paid to adult male and female employees. The Board has power also to fix different rates to be paid in different defined areas.

The family unit is not specifically defined in the Code, but the South Australian Industrial Court in 1920 decided that the average employee in respect of whom the living wage is to be declared is a man with a wife and three children.

The first declaration by the Board of Industry was made on 15th July, 1921, when the living wage for adult male employees in the metropolitan area was determined at £3 19s. 6d. per week.

Following on the declaration of an "interim" increase in its "needs" basic wage by the Commonwealth Court of Conciliation and Arbitration on 13th December, 1946 (*see* p. 414) the South Australian Parliament, by virtue of the Economic Stability Act No. 52 of 1946, and other enabling powers, provided for the Governor, by proclamation, to declare the "daily living wage" for adult males in the metropolitan area to be one-sixth of the Commonwealth weekly basic wage for this area (102s. per week, inclusive of the "prosperity loading" of 4s.) and to be operative from 7th January, 1947. The Act mentioned also provided for similar proclamations in respect of any adjustment of such wage, but the powers of the Board of Industry to declare a "living wage" were retained, and any such wage so declared will supersede that declared by proclamation.

The variations in the living wages determined by the Board of Industry up to 25th November, 1937, were published in previous issues of the Official Year Book (*see* No. 37, page 483). Variations since that date are shown below :—

LIVING WAGE VARIATIONS IN SOUTH AUSTRALIA. (*State Jurisdiction.*)

Date of Operation.	Living Wage per Week.					
	Male.			Female.		
	£	*s.*	*d.*	£	*s.*	*d.*
5th January, 1939	3	18	0	1	18	0
28th November, 1940	4	4	0	2	1	0
26th November, 1941	4	7	0	2	3	6
15th October, 1942	4	14	0	2	6	2
26th September, 1946	4	18	6	2	15	0
7th January, 1947 (*a*)	5	2	0	2	17	0
21st August, 1947	5	4	0	2	18	0
13th November, 1947	5	6	0	2	19	0
7th July, 1948	5	17	0	3	6	6
19th May, 1949	6	5	0	3	8	6

(*a*) Commonwealth rate for metropolitan area adopted.

The Industrial Code Amendment Act No. 65 of 1949 made provision for the quarterly adjustment of the "living wage" in accordance with the variations in the Commonwealth basic wage consequent on the changes in the Court Series index of retail prices for Adelaide. In effect this resulted in parity between the State living wage and the Commonwealth basic wage from the beginning of the first pay period commencing in February, 1950.

The prescribed adjustment to the female "living wage" was seven-twelfths of the same adjustment to the Commonwealth male basic wage.

The Board of Industry retained power to amend the "living wage" but any new "living wage" was to be adjusted quarterly as above.

Following the decisions of the Commonwealth Court of Conciliation and Arbitration in the 1949–50 Basic Wage Inquiry (*see* page 415), the South Australian legislation was amended to enable, *inter alia*, the "living wage" to be altered by proclamation "in order to avoid unjustifiable differences between rates of wage fixed under Commonwealth and State laws respectively".

By proclamation dated 30th November, 1950, the South Australian Living Wage in the metropolitan area was increased from £6 17s. to £7 18s. for adult males and from £3 14s. 11d. to £5 18s. 6d. for adult females, operative from 4th December, 1950. These new rates were identical with the December rates fixed by the Commonwealth Court of Conciliation and Arbitration for the metropolitan area of South Australia.

There was thus an increase of £1 1s. per week for adult males and £2 3s. 7d. for adult females. The larger increase for females was attributable to the change in the percentage of the male rate upon which the female rate was based. Previously the female rate had been approximately 54 per cent. of the male basic wage but by the proclamation the female basic wage was increased to 75 per cent. of the corresponding male rate.

The rates payable in accordance with the quarterly adjustments notified by the President of the Board of Industry operating from the beginning of the first pay period commencing in November, 1951, were £9 15s. per week for adult males, and £7 6s. for adult females.

(v) *Western Australia.* The Industrial Arbitration Act 1912–1950 provides that the Court of Arbitration may determine and declare a basic wage at any time on its own motion and must do so when requested by a majority of industrial unions or by the Western Australian Employers' Federation, with the limitation that no new determination shall be made within twelve months of the last preceding inquiry.

The term "basic" wage is defined in the Act as "a wage which the Court considers to be just and reasonable for the average worker to whom it applies". In determining what is just and reasonable the Court must take into account not only the "needs of an average worker" but also the "economic capacity of industry" and any other matters the Court deems relevant.

Provision is also made in the Act for quarterly adjustments of the "basic" wage by the Court of Arbitration when an official statement supplied to the Court by the State Government Statistician relating to the cost of living shows that a variation of 1s. or more per week has occurred, compared with the preceding quarter. These adjustments apply from the dates of declaration by the Court.

The first declaration of the basic wage by the Court of Arbitration, since the authority to fix one was vested in the Court in 1925, was made on 11th June, 1926. The family unit is not specifically defined in the Act, but it has been the practice of the Court to take as a basis for its calculations a man, his wife and two dependent children. The variations in the annual declarations of the Court of Arbitration up to 1937 were published in previous issues of the Official Year Book (*see* No. 37, page 484). Annual and special declarations since 1937 are shown in the following table :—

BASIC WAGE VARIATIONS IN WESTERN AUSTRALIA. (*State Jurisdiction.*)

Date of Operation.	Metropolitan Area.						South-West Land Division (excluding Metropolitan Area).						Other Parts of State.					
	Male.			Female.			Male.			Female.			Male.			Female.		
	£	*s.*	*d.*	£	*s.*	*d.*	£	*s.*	*d.*	£	*s.*	*d.*	£	*s.*	*d.*	£	*s.*	*d.*
1st July, 1938 ..	4	0	0	2	3	2	4	1	0	2	3	9	4	13	3	2	10	4
" " 1939 ..	*a*4	2	2	*a*2	4	4	4	3	1	2	14	10	*a*4	16	4	*a*2	12	0
" " 1940 ..	4	2	8	2	4	8	4	3	3	2	4	11	4	16	3	2	12	0
" " 1941 (*b*) ..	4	8	0	2	7	6	4	9	3	2	8	2	5	3	6	2	15	11
" " 1942 ..	4	10	5	2	8	10	4	10	10	2	9	1	5	5	7	2	17	0
" " 1943 ..	4	19	1	2	13	6	4	18	1	2	13	0	5	5	9	2	17	1
" " 1944 ..	4	19	11	2	13	11	4	19	8	2	13	10	5	7	1	2	17	10
" " 1945 ..	5	0	1	2	14	1	4	19	7	2	13	9	5	7	5	2	18	0
" " 1946 ..	5	1	1	2	14	7	5	0	6	2	14	3	5	9	0	2	18	10
26th Feb., 1947 (*c*) ..	5	7	1	2	17	10	5	6	6	2	17	6	5	15	4	3	2	3
1st July, 1947 ..	5	7	10	2	18	3	5	7	3	2	17	11	5	16	0	3	2	8
" " 1948 ..	5	15	9	3	2	6	5	15	2	3	2	2	6	4	9	3	7	4
" " 1949 ..	6	7	1	3	8	8	6	6	9	3	8	5	6	15	1	3	12	11
" " 1950 ..	7	0	0	3	15	7	6	19	9	3	15	6	7	7	3	3	19	6
18th Dec., 1950(*c*) ..	8	6	6	4	14	1	8	6	7	4	14	2	8	14	8	4	18	6

(*a*) Applicable from 24th April, 1939. (*b*) Applicable from 28th April, 1941. (*c*) Special declarations following basic wage increases granted by the Commonwealth Court.

The increased basic wage of 26th February, 1947 was granted after an inquiry by the Western Australian Court of Arbitration consequent upon the "interim" basic wage judgment of the Commonwealth Court of Conciliation and Arbitration in December, 1946 (*see* page 414).

Following the judgment of the Commonwealth Court of Conciliation and Arbitration in the 1949–50 Basic Wage Inquiry (*see* page 415) the Western Australian Court of Arbitration resumed an inquiry which had been adjourned, to ascertain what change should be made in the State basic wage rates. In its judgment of 7th December, 1950 the Court decided that the basic wage should be increased by £1 per week for adult males and by 15s. per week for adult females. The rates in the metropolitan area then became £8 6s. 6d. for adult males and £4 14s. 1d. for adult females operative from 18th December, 1950.

In relation to the female rate the Unions' claim had been for a basic wage equal to 75 per cent. of the male rate instead of the existing 54 per cent. basis. Although this claim was not granted it was intimated that the increase of 15s. should not necessarily be regarded as the Court's final word on the subject.

The judgment of the Court may be found on page 336 of the Western Australian Industrial Gazette, Volume 30, No. 3–4.

As the result of a subsequent inquiry the basic wage for adult females was increased to 65 per cent. of the corresponding male rate, operative from 1st December, 1951. This was subject to the condition that the increase should be offset by the reduction in or deletion of existing margins between the basic wage and the total wage as specified by the appropriate award or determination.

The rates payable in the metropolitan area in accordance with the quarterly adjustments declared by the Court, operative from 22nd October, 1951 are £10 5s. 8d. for adult males and £5 16s. 3d. for adult females.

(vi) *State Basic Wage Rates.* The " basic " wage rates of State industrial tribunals operative in November, 1951 are summarized in the following table :—

STATE BASIC WAGE—WEEKLY RATES.

State.	February, 1951.			November, 1951.		
	Date of Operation.	Males.	Females.	Date of Operation.	Males.	Females.
		s. d.	*s. d.*		*s. d.*	*s. d.*
New South Wales—						
Metropolitan and Country, excluding Broken Hill ..	(*a*)	173 0	129 6	(*a*)	207 0	155 0
Broken Hill	(*a*)	184 0	138 0	(*a*)	209 0	156 6
Victoria (*b*)	(*a*)	170 0	127 6	(*a*)	199 0	149 0
Queensland—						
Southern Division (Eastern District)— including Brisbane (*c*)	5.2.51	159 0	105 6	29.10.51	185 0	123 0
South Australia	(*a*)	166 0	124 6	(*a*)	195 0	146 0
Western Australia—						
Metropolitan Area	29.1.51	172 11	97 9	22.10.51	205 8	(*d*) 116 3
South-West Land Division ..	29.1.51	172 11	97 9	22.10.51	204 7	(*d*) 115 8
Gold-fields and other areas ..	29.1.51	180 5	101 9	22.10.51	210 11	(*d*) 118 11
Tasmania (*b*)	(*a*)	165 0	123 6	(*a*)	199 0	149 0

(*a*) Operative from beginning of first pay period commencing in month shown. (*b*) None declared but rates (capital city) shown are those of Commonwealth Court of Conciliation and Arbitration which are followed to a large extent. (*c*) Allowances added for other areas :—Males—Southern Division (Western District), 7s. 4d. ; Mackay Division, 5s. 6d. ; Northern Division (Eastern District) 10s. ; Northern Division (Western District), 17s. 4d. ; Females—half of these allowances. (*d*) Increased female rates operative from 1st December, 1951 as follows :—Metropolitan area, 133s. 8d. ; South-West Land Division, 133s. ; Gold-fields and other areas, 137s. 1d. The increase in the basic wage element for females in December, 1951 was partly offset by a decrease in the margin between the basic wage and total wage.

6. **Royal Commission on the Basic Wage, 1920.**—Only one comprehensive attempt has been made by the Commonwealth authorities to ascertain specifically what the actual requirements were in the various States according to reasonable standards of comfort, including all matters comprised in the ordinary expenditure of a household in respect of a family consisting of a man, wife and three children under fourteen years of age.

The attempt referred to was made by a Royal Commission which in its report, issued in 1920, recommended the following amounts for the various capital cities :—

	£ *s.* *d.*
Sydney	5 17 1
Melbourne	5 16 6
Brisbane	5 6 2
Adelaide	5 16 1
Perth	5 13 11
Hobart	5 16 11
Six Capitals (Weighted Average)	5 15 8

The recommendations of this Commission were not carried out owing largely to the marked advance of the amounts suggested over ruling rates* and the grave doubts expressed as to the ability of industry to pay such rates.

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* The " Harvester " equivalent for Melbourne at the time (September quarter, 1920) was £4 13s. per week, but only £3 18s. to £4 2s. was being paid on the basis of an annual index-number.

§ 4. Child Endowment in Australia.

1. **General.**—The principle of supplementing wages by a payment in respect of dependent children under sixteen years of age became prominent in Australia following the recommendations of the Royal Commission on the Basic Wage of 1920, and was implemented in Australia as described in the following paragraphs. The system has been in force in various forms in England and on the Continent as far back as 1795, the first instance occurring in England in that year.

2. **National Scheme.**—The Commonwealth Government, in June, 1927, called a conference in Melbourne of the Premiers of the several States to consider the question from a national standpoint. The Prime Minister submitted various estimates of the cost of endowing dependent children under fourteen years of age in Australia at 5s. per week. After discussion, it was decided to refer the matter to a Royal Commission, to be appointed by the Commonwealth Government.

The Commission submitted its report on 15th December, 1928. It was not unanimous in its findings, and the opinions and recommendations of the members were embodied in two separate reports, which dealt exhaustively with the constitutional aspects, existing systems, industrial legislation, the basic wage, standard of living, regulation of wages, working conditions and cognate matters.

At the conference of Commonwealth and State Ministers held in Canberra in May, 1929, the Prime Minister stated that the Commonwealth Government was not prepared to adopt the scheme financed entirely from the proceeds of taxation, as had been recommended in the minority report. The Commonwealth Government agreed with the majority of the Commission that child endowment could not be separated from the control of the basic wage—a power which the Commonwealth did not possess and which the States were not prepared to relinquish. The Government, therefore, did not propose to establish any system of child endowment. It was generally agreed that any scheme which would increase the charges upon industry would be unwise at that particular time. The matter of child endowment was accordingly left to be dealt with as the State Governments should think proper.

The findings and recommendations in the *majority* and *minority* reports are given in *Labour Report*, No. 19.

In 1941, the Commonwealth Government introduced a scheme of child endowment throughout Australia. The necessary legislation* was introduced into Parliament on 27th March, and finally passed on 3rd April, and came into operation from 1st July, 1941. As amended to date (November, 1951) its main features are as follows :—

(*a*) Any person who is a resident of Australia and has the custody, care and control of one or more children under the age of 16 years, or an approved institution of which children are inmates shall be qualified to receive an endowment in respect of each child.

From the 20th June, 1950, the rates of endowment have been :—

- (i) where the endowee has one child only, 5s. per week ;
- (ii) where the endowee has two or more children—in respect of the elder or eldest child, 5s. per week and in respect of each other child, 10s. per week ;
- (iii) in the case of the endowee being an approved institution the rate is 10s. per week for each child inmate.

(*b*) There are provisions to cover cases of families divided by reason of divorce, separation, death of a parent or other circumstances. In such cases payment may be made to the father, mother, or other person.

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* Act No. 8, 1941 (Child Endowment Act) as amended by No. 5, 1942, and Nos. 10 and 41, 1945 (now incorporated in Part VI. of the Social Services Consolidation Act 1947–1950); Act No. 2, 1941 (Pay-roll Tax Assessment Act); and Act No. 3, 1941 (Pay-roll Tax Act).

A child born during the mother's temporary absence from Australia is deemed to have been born here.

There is a twelve months' residential requirement for claimants and children who were not born in Australia, but this is waived if the claimant and the child are likely to remain permanently in Australia.

(*c*) Endowment will be paid for the children of members of the Naval, Military or Air Forces of the United Kingdom who are serving with the Australian Forces from the time of their arrival in Australia.

(*d*) From 1st July, 1941, when the scheme was introduced the rate of endowment was 5s. per week for each child in excess of one in a family and, for each child under 16 years in an approved institution, the rate being increased to 7s. 6d. a week from 25th June, 1945, and to 10s. per week from 9th November, 1948. There is no means test.

(*e*) Endowment in respect of the first child under 16 years in a family was first provided for by an amendment of the legislation in June, 1950.

(*f*) The scheme, which formerly was financed partly from Consolidated Revenue, partly from the abolition of the exemptions from taxation in respect of children after the first, and the major part from a tax of 2½ per cent. of all pay-rolls in excess of £20 per week, is now a charge on the National Welfare Fund.

A summary of the operations under the Child Endowment Scheme from 1st July, 1946 to 30th June, 1951, is given on pp. 314–5 of Chapter IX. " Welfare Services ".

3. **Earlier Schemes.**—Consequent upon the operation of the Commonwealth Child Endowment Scheme, appropriate steps were taken for the termination of the schemes operating in the Commonwealth Public Service and in New South Wales. The Commonwealth Public Service Scheme was the first system instituted in Australia and came into operation on 1st November, 1920. In New South Wales an abortive attempt to institute the system was made in 1919 and a scheme was adopted under the Family Endowment Act 1927 which operated from 23rd July, 1927. For further details of these schemes reference may be made to the Official Year Book No. 37, pages 485 and 486.

E. EMPLOYMENT.

§ 1. Employment.

1. **Total Occupied Persons.**—(i) *General.* The following estimates of the total numbers of occupied males and females are based principally on data from the 1933 Census (June), the National Register (July, 1939), The Civilian Register (June, 1943), the Occupation Survey (June, 1945) and the 1947 Census (June). These sources of information have been supplemented by Pay-roll Tax returns, which commenced in July, 1941. Owing to some difference in coverage, 1947 figures in the following tables differ slightly from Census figures as shown in Chapter XIII. The 1947 figures are subject to revision.

(ii) *Australia.* The estimates in the table below are divided into three categories (*a*) Defence Forces ; (*b*) all persons fully occupied as employers, or as self-employed in businesses or on farms ; and (*c*) wage or salary earners fully employed, or occupied as casual, part-time, intermittent or seasonal workers. Wage earners unemployed, in the sense that they are incapacitated or have no work to go to, are excluded, as also are persons engaged on Government relief works.

All unpaid helpers in non-rural industry have been included with wage and salary earners. Male unpaid helpers in rural industry have been included with employers and self-employed persons, as it is considered that the majority of these are sons or other close relatives of farmers working in an unofficial partnership, or as learners with the farm owner. Unpaid female helpers on farms are very numerous, but their exact number is not known. Generally, they combine part-time dairy or other farm work with part-time duties in the home. Together with women occupied in unpaid home duties they have been excluded from the category of occupied persons.

Statistics of net enlistments in the Defence Forces shown in the table below represent total enlistments for full-time duty less deaths and discharges. Prior to December, 1941, men in certain age-groups were called-up for short training courses but these men are excluded from the figures. In July, 1941, the number of such men was approximately 50,000.

TOTAL OCCUPIED PERSONS : AUSTRALIA.

('000.)

Year and Month.	Defence Forces (Net Enlistments). (a)	Employers and Self-employed.			Wage and Salary Earners.			Total Occupied Civilians.	Total Occupied Persons including Forces (a)
		Rural Industry.	Other Industries.	Total.	Rural Industry.	Other Industries.	Total.		
MALES.									
1933—June ..	5.8	292.4	248.3	540.7	200.0	992.0	1,192.0	1,732.7	1,738.5
1939—July ..	12.9	300.0	299.0	599.0	202.0	1,293.1	1,495.1	2,094.1	2,107.0
1941—July ..	282.8*b*	284.0	208.0	492.0	188.0	1,363.4	1,551.4	2,043.4	2,326.2
1943—June ..	685.0	262.0	150.0	412.0	120.9	1,273.2	1,394.1	1,806.1	2,491.1
1945—June(*c*) ..	603.5	287.5	187.1	474.6	130.2	1,294.2	1,424.4	1,899.0	2,502.5
1947—June ..	53.2	278.9	286.8	565.7	148.2	1,649.4*d*	1,797.6*d*	2,363.3*d*	2,416.5*d*
FEMALES.									
						(*e*)			
1933—June ..	..	15.1	56.2	71.3	4.4	447.5	451.9	523.2	523.2
1939—July ..	..	16.0	62.0	78.0	4.0	561.6	565.6	643.6	643.6
1941—July ..	1.8	14.0	56.8	70.8	6.0	656.2	662.2	733.0	734.8
1943—June ..	44.0	11.7	34.4	46.1	28.1	682.1	710.2	756.3	800.3
1945—June(*c*) ..	45.4	17.0	43.1	60.1	23.0	667.1	690.1	750.2	795.6
1947—June ..	0.8	13.8	55.8	69.6	8.1	659.9*d*	668.0*d*	737.6*d*	738.4*d*
PERSONS.									
1933—June ..	5.8	307.5	304.5	612.0	204.4	1,439.5	1,643.9	2,255.9	2,261.7
1939—July ..	12.9	316.0	361.0	677.0	206.0	1,854.7	2,060.7	2,737.7	2,750.6
1941—July ..	284.6*b*	298.0	264.8	562.8	194.0	2,019.6	2,213.6	2,776.4	3,061.0
1943—June ..	729.0	273.7	184.4	458.1	149.0	1,955.3	2,104.3	2,562.4	3,291.4
1945—June(*c*) ..	648.9	304.5	230.2	534.7	153.2	1,961.3	2,114.5	2,649.2	3,298.1
1947—June ..	54.0	292.7	342.6	635.3	156.3	2,309.3*d*	2,465.6*d*	3,100.9*d*	3,154.9*d*

(*a*) Includes those serving outside Australia. (*b*) Excludes approximately 50,000 men called up for short training courses. (*c*) Occupation Survey, 1st June, 1945. (*d*) Subject to revision. (*e*) Includes females, in thousands, in private domestic service as follows :—106.7 in June, 1933 ; 124.5 in July, 1939 ; 100.0 in July, 1941 ; 41.5 in June, 1943 ; 47.6 in June, 1945 ; and 40.3 in June, 1947.

From June, 1933 to July, 1939, the number of occupied persons of both sexes increased by 488,900, due to the increase of 223,700 in the number of available breadwinners and to the decrease of 265,200 in the number unemployed from 563,200 to 298,000.

During the war years from July, 1939 to June, 1943, the number of males occupied as civilians decreased by 288,000, while females occupied as civilians increased by nearly 113,000, representing a net decrease of 175,000 persons. This decrease, together with decrease of unemployment (272,000), normal increase of breadwinners (91,000) and an abnormal war-time increase of 178,000 bread-winners (persons who would not otherwise have been working), balanced the net intake into the Defence Forces at June, 1943 (716,000). The estimate of 659,000 female wage and salary earners employed in non-rural industries as at June, 1947, includes 40,300 private domestics (the Census figure). The remaining 619,000 females in the estimate include females working part-time. The 1947 Census figure for the same industries (i.e. excluding rural and private domestic) was 579,200. Persons working regularly but for considerably less than normal working hours were instructed on the Census Schedule to exclude themselves from the work force, unless their earnings from such work formed their principal means of livelihood.

(iii) *States.* The following table shows total occupied males and females in each State in July, 1939, and June, 1947, divided into Defence Forces, Employers and Self-employed, and Wage and Salary Earners.

TOTAL OCCUPIED PERSONS: STATES.

('000.)

State.	Defence Forces (Net Enlistments). (a)		Employers and Self-employed.		Wage and Salary Earners.		Total Occupied Persons, including Forces. (a)	
	July, 1939.	June, 1947.	July, 1939.	June, 1947.	July, 1939.	June, 1947. (b)	July, 1939.	June, 1947. (b)
				MALES.				
New South Wales	4.9	23.1	216.2	197.5	596.2	723.6	817.3	944.2
Victoria	4.4	15.9	162.9	158.1	399.5	480.9	566.8	654.9
Queensland	1.0	5.9	95.1	96.9	218.6	255.4	314.7	358.2
South Australia ..	1.1	2.6	54.6	51.8	127.7	154.4	183.4	208.8
Western Australia ..	1.0	3.4	47.4	39.8	99.7	115.6	148.1	158.8
Tasmania	0.5	0.8	21.5	20.1	46.9	58.1	68.9	79.0
Australia (c) ..	12.9	53.2	599.0	565.7	1,495.1	1,797.6	2,107.0	2,416.5
				FEMALES.				
New South Wales	..	0.3	28.4	25.4	220.8	268.8	249.2	294.5
Victoria	..	0.4	25.5	22.4	175.3	203.4	200.8	226.2
Queensland	..	0.1	11.1	10.2	71.2	83.2	82.3	93.5
South Australia ..	..	..	6.0	5.2	47.4	52.9	53.4	58.1
Western Australia ..	..	..	4.8	4.3	33.2	38.4	38.0	42.7
Tasmania	..	..	2.2	1.9	16.3	19.0	18.5	20.9
Australia (c) ..	..	0.8	78.0	69.6	565.6	668.0	643.6	738.4
				PERSONS.				
New South Wales	4.9	23.4	244.6	222.9	817.0	992.4	1,066.5	1,238.7
Victoria	4.4	16.3	188.4	180.5	574.8	684.3	767.6	881.1
Queensland	1.0	6.0	106.2	107.1	289.8	338.6	397.0	451.7
South Australia ..	1.1	2.6	60.6	57.0	175.1	207.3	236.8	266.9
Western Australia ..	1.0	3.4	52.2	44.1	132.9	154.0	186.1	201.5
Tasmania	0.5	0.8	23.7	22.0	63.2	77.1	87.4	99.9
Australia (c) ..	12.9	54.0	677.0	635.3	2,060.7	2,465.6	2,750.6	3,154.9

(a) Includes those serving outside Australia. (b) Subject to revision. (c) Includes Australian Capital Territory and Northern Territory.

Between July, 1939 and June, 1947, the occupied population of Australia (including Defence Forces but excluding unemployed, pensioners, retired persons of independent means and dependants) increased by approximately 14.7 per cent. The proportionate increase in each State was as follows: New South Wales, 16.1; Victoria, 14.8; Queensland, 13.8; South Australia, 12.7; Western Australia, 8.3; Tasmania, 14.3.

2. **Wage and Salary Earners in Employment.**—(i) *Australia and States.* Estimates are made monthly of wage and salary earners in employment (excluding employees in rural industry and female domestics in private homes), based on Pay-roll Tax returns and statistics of Commonwealth Government employment. Pay-roll Tax returns cover only a small proportion of wage earners on rural holdings, and practically no private domestic servants. It is not possible to obtain actual numbers of farm employees and private domestic servants except when a Census or quasi-Census such as Occupation Survey (1st June, 1945) is taken, but estimates have been made from time to time using available data. The next table shows for each State and for Australia as a whole the trend in that section of wage and salary earning employment which it is possible to estimate monthly. Figures are shown as at June, 1933 (Census) and July, 1939 (based on National Register). From July, 1941 (commencement of Pay-roll Tax returns) the estimates are available for each month, and the table shows the level in June of the years 1945, 1947 and 1948, in May, 1949, and in June, 1950 and 1951.

WAGE AND SALARY EARNERS IN EMPLOYMENT.

(Excluding Rural Wage Earners, Female Domestics in Private Homes, and Persons on Paid Strength of Defence Forces.)

('000.)

Year and Month.	New South Wales.	Victoria.	Queensland.	South Australia.	Western Australia.	Tasmania.	Australia. (*a*)
			MALES.				
1933—June	380.6	288.6	139.8	80.5	70.1	29.0	992.0
1939—July	529.9	357.5	172.8	106.7	82.9	37.4	1,293.1
1945—June(*b*)	534.1	359.1	168.7	109.8	75.6	39.5	1,294.2
1947—June(*c*)	671.8	452.6	220.2	140.9	103.9	51.1	1,649.4
1948—June(*c*)	702.3	473.3	232.6	149.0	109.2	54.5	1,730.9
1949—May(*c*) (*d*)	721.4	489.3	239.8	155.0	112.8	57.4	1,787.1
1950—June(*c*)	740.8	510.7	250.4	165.7	120.5	58.4	1,858.7
1951—June(*c*)	758.2	525.8	259.3	170.0	125.3	60.2	1,911.5
			FEMALES.				
1933—June	125.8	118.2	40.5	26.0	20.6	9.1	340.8
1939—July	168.0	142.9	53.2	34.0	26.2	11.6	437.1
1945—June(*b*)	247.7	193.8	74.9	48.8	35.6	16.7	619.5
1947—June(*c*)	252.1	190.5	74.5	48.0	35.6	16.9	619.6
1948—June(*c*)	261.9	196.7	77.9	50.1	37.0	18.0	644.0
1949—May(*c*) (*d*)	269.9	202.5	80.1	52.2	37.8	18.8	664.1
1950—June(*c*)	278.5	210.0	83.1	54.3	39.9	19.4	688.2
1951—June(*c*)	290.9	219.6	86.1	57.0	41.6	20.3	718.8
			PERSONS.				
1933—June	506.4	406.8	180.3	106.5	90.7	38.1	1,332.8
1939—July	697.9	500.4	226.0	140.7	109.1	49.0	1,730.2
1945—June(*b*)	781.8	552.9	243.6	158.6	111.2	56.2	1,913.7
1947—June(*c*)	923.9	643.1	294.7	188.9	139.5	68.0	2,269.0
1948—June(*c*)	964.2	670.0	310.5	199.1	146.2	72.5	2,374.9
1949—May(*c*) (*d*)	991.3	691.8	319.9	207.2	150.6	76.2	2,451.2
1950—June(*c*)	1,019.3	720.7	333.5	220.0	160.4	77.8	2,546.9
1951—June(*c*)	1,049.1	745.4	345.4	227.0	166.9	80.5	2,630.3

(*a*) Includes Australian Capital Territory and Northern Territory. (*b*) 1st June, 1945 (Occupation Survey). (*c*) Subject to revision. (*d*) Figures for May, 1949 have been used for purposes of annual comparison because of the effects of the coal dispute in June, 1949.

Estimates for recent months for Australia, corresponding to the foregoing, together with details for certain industrial groups, are published regularly in the *Monthly Review of Business Statistics* and the *Monthly Bulletin of Employment Statistics.*

(ii) *Industrial Groups.* The following table shows the total male and female wage and salary earners in employment (excluding employees in rural industry, female private domestics and persons on the paid strength of the Defence Forces) subdivided to show the extent of employment provided by Governmental authorities and by private employers respectively. Some principal industrial groups included in the total are shown separately and include both Governmental and private employees, except in the case of retail trade, where there are no Governmental employees.

WAGE AND SALARY EARNERS IN EMPLOYMENT, INDUSTRIAL GROUPS: AUSTRALIA.

(*Excluding Rural Wage Earners, Female Domestics in Private Homes, and Persons on Paid Strength of Defence Forces.*)

('000.)

Year and Month.	Total Employment.			Employment in Certain Industrial Groups.				
	Governmental. (*a*)	Private Employers.	Total.	Mining and Quarrying.	Factories.	Transport and Communication.	Retail Trade.	Other Commerce and Finance.
				MALES.				
1933—June	262.2	729.8	992.0	36.3	251.7	164.4	212.2	
1939—July	349.8	943.3	1,293.1	52.2	391.5	185.9	259.7	
1945—June(*b*) ..	399.9	894.3	1,294.2	43.4	514.5	209.6	76.3	96.5
1947—June(*c*) ..	472.0	1,177.4	1,649.4	51.0	593.2	256.4	116.0	151.9
1948—June(*c*) ..	494.0	1,236.9	1,730.9	52.7	625.0	269.9	123.3	161.7
1949—May(*c*) (*d*) ..	518.9	1,268.2	1,787.1	52.3	635.9	281.7	125.6	169.9
1950—June(*c*) ..	553.5	1,305.2	1,858.7	53.9	659.0	292.8	127.1	178.0
1951—June(*c*) ..	570.4	1,341.1	1,911.5	55.8	674.7	294.7	129.7	188.4
				FEMALES.				
1933—June	46.5	294.3	340.8	0.2	103.1	11.1	87.3	
1939—July	55.2	381.9	437.1	0.3	148.2	12.6	114.9	
1945—June(*b*) ..	125.4	494.1	619.5	0.4	206.3	36.5	95.9	52.5
1947—June(*c*) ..	92.1	527.5	619.6	0.5	199.9	32.4	104.0	53.0
1948—June(*c*) ..	94.9	549.1	644.0	0.6	208.0	35.0	109.3	56.9
1949—May(*c*) (*d*) ..	99.2	564.9	664.1	0.7	215.6	37.0	111.1	59.8
1950—June(*c*) ..	107.6	580.6	688.2	0.7	223.8	38.8	113.3	64.8
1951—June(*c*) ..	113.8	605.0	718.8	0.8	234.4	40.1	119.1	71.3
				PERSONS.				
1933—June	308.7	1,024.1	1,332.8	36.5	354.8	175.5	299.5	
1939—July	405.0	1,325.2	1,730.2	52.5	539.7	198.5	374.6	
1945—June(*b*) ..	525.3	1,388.4	1,913.7	43.8	720.8	246.1	172.2	149.0
1947—June(*c*) ..	564.1	1,704.9	2,269.0	51.5	793.1	288.8	220 0	204.9
1948—June(*c*) ..	588.9	1,786.0	2,374.9	53.3	833.0	304.9	232.6	218.6
1949—May(*c*) (*d*) ..	618.1	1,833.1	2,451.2	53.0	851.5	318.7	236.7	229.7
1950—June(*c*) ..	661.1	1,885.8	2,546.9	54.6	882.8	331.6	240.4	242.8
1951—June(*c*) ..	684.2	1,946.1	2,630.3	56.6	909.1	334.8	248.8	259.7

(*a*) Includes employees of Australian Government Authorities (Commonwealth, State and Local) and of Allied Governments. (*b*) 1st June, 1945 (Occupation Survey). (*c*) Subject to revision. (*d*) *See* note (*d*) to table on page 429.

(iii) *Factories.* Actual mid-monthly factory employment derived from the results of annual factory censuses is published in the *Production Bulletin* issued by this Bureau.

Additional tables regarding employment in factories may be found in Chapter XXIV. "Manufacturing Industry".

An index of factory employment in Australia, published in the *Monthly Review of Business Statistics*, shows that in 1950–51 factory employment was 70 per cent. higher than the average employment for the three years ended June, 1939.

3. **Employment in Retail Trade.**—Estimates of the numbers of persons employed in retail trade in Australia and each State are published in the *Monthly Review of Business Statistics*. They are based on Pay-roll Tax returns, which commenced in July, 1941.

§ 2. Unemployment.

1. **Total Persons Unemployed.**—The total number of persons unemployed has been recorded only at the dates of the various censuses. The Census records include all persons who state that they are unemployed, and distinguish between unemployment on account of sickness, accident, scarcity of work, industrial dispute, and all other causes combined. The following table sets out the number of unemployed at the Censuses of 1911, 1921, 1933 and 1947, the National Register, 1939, and the Occupation Survey, 1945. The percentage which the unemployed bore at each date to all wage and salary earners of the same sex, comprising those estimated to be in employment and those unemployed, is also shown.

UNEMPLOYMENT (ALL CAUSES): AUSTRALIA.

Year and Month.	Wage and Salary Earners Unemployed.			Proportion of Wage and Salary Earners Unemployed.		
	Males.	Females.	Total.	Males.	Females.	Total.
	'000.	'000.	'000.	%	%	%
1911—April (Census) ...	48.0	8.3	56.3	4.3	2.7	4.0
1921—April ,, ..	139.4	21.5	160.9	10.7	5.7	9.6
1933—June (*a*) ,, ..	460.2	103.1	563.3	27.9	19.1	25.8
1939—July (*b*) ..	264.0	34.0	298.0	15.0	5.7	12.6
1945—June (*c*) ...	39.9	16.2	56.1	2.7	2.3	2.6
1947—June (Census) (*d*)	66.0	16.8	82.8	3.5	2.5	3.2

(*a*) The figures shown for 1933 are in excess of those actually recorded at the Census through an allowance having been made for a number of youths and girls who would normally have been wage and salary earners, but who, on account of the economic depression, having never been employed, were not classed as wage and salary earners. (*b*) Derived from National Register, 1939. (*c*) Derived from Occupation Survey, 1945. (*d*) Persons in the work force who were not at work at the time of the Census.

The estimates and percentages of unemployment given above for periods subsequent to the Census of 1933 should be interpreted in conjunction with the notes below.

The estimates for 1939 were based on the National Register, which covered males aged 18–64 years, and data available from other sources. Owing to the use on the Occupation Survey (1945) card of the definition "a person normally working for wages but without a job on 1st June", it appears that the 1945 figures exclude some persons who were temporarily absent from their jobs at the date of the survey.

The proportion of wage earners unemployed in July, 1939, immediately prior to the 1939–45 War, was estimated at approximately 12½ per cent. In July, 1941, it was about 4 per cent. and by June, 1943, under conditions of intensive mobilization of manpower for war purposes involuntary unemployment was practically nil.

Of the numbers at the 1947 Census shown above 25.6 per cent. were not at work owing to sickness or accident and 26.6 per cent. stated that they were resting. Of the latter approximately half said they expected to resume their former jobs.

2. **Unemployment of Members of Trade Unions.**—(i) *General.* The particulars given in the following tables are based upon information furnished by the secretaries of trade unions. The percentages of unemployment derived from trade union returns are an indication of the trend of unemployment among trade unionists as estimated or recorded by secretaries of trade unions which supply returns. The membership of the unions furnishing regular reports exceeds 830,000, consisting predominantly of males and representing about 52 per cent. of the total trade union membership, and between 25 and 30 per cent. of all wage and salary earners. Unemployment returns are not collected from unions whose members are in permanent employment, such as railway and tramway employees, and public servants, or from unions whose members are casually employed (wharf labourers, etc.). Very few of the unions pay unemployment benefit, but the majority of the larger organizations have permanent secretaries and organizers who are closely in touch with the members and with the state of trade within their particular industries. In some cases unemployment registers are kept, and provision is made in the rules for payment of reduced subscriptions by members out of work. Seasonal fluctuations in unemployment have been provided for by collecting returns quarterly since 1st January, 1913. The quarterly figures relate to persons who were out of work for three days or more during a specified week in each quarter: they include persons out of work through sickness but exclude persons out of work through strikes and lock-outs, except those outside the industry who are indirectly affected. The yearly figures quoted represent the average of the four quarters.

(ii) *Summary for Australia,* 1939 *to* 1950. The following table gives a summary for Australia for the years 1939 and 1946 to 1950 and quarterly for the years 1939 and 1948 to 1950. Particulars of unemployment percentages at intervals since 1911 will be found on page 431:—

UNEMPLOYMENT OF MEMBERS OF TRADE UNIONS: AUSTRALIA.

Period.		Unions.	Membership.	Unemployed.	
				Number.	Proportion of membership.
					%
1939	Year	396	476,918	45,967	9.7
1946	"	383	672,121	9,125	1.4
1947	"	381	718,096	8,432	1.2
1948	"	380	761,104	6,533	0.9
1949	"	377	790,630	(a) 15,342	(a) 2.0
1950	"	375	827,256	6,659	0.8
1939	March Quarter ..	395	474,277	45,545	9.6
	June " ..	398	477,149	45,183	9.5
	September " ..	397	478,000	48,888	10.2
	December " ..	392	478,245	44,253	9.3
1948	March " ..	381	744,901	6,484	0.9
	June " ..	380	752,222	6,549	0.9
	September " ..	380	769,959	6,813	0.9
	December " ..	380	777,332	6,287	0.8
1949	March " ..	380	785,468	5,898	0.8
	June " ..	380	792,428	6,337	0.8
	September " ..	373	776,195	(a) 43,030	(a) 5.5
	December " ..	375	808,428	6,103	0.8
1950	March " ..	375	822,464	6,963	0.8
	June " ..	375	819,331	6,361	0.8
	September " ..	375	828,094	7,038	0.8
	December " ..	374	839,136	6,273	0.7

(a) Includes all members of reporting unions indirectly affected by the dispute in the coal mining industry; those directly affected are, however, excluded.

NOTE.—Similar figures for each of the four quarters of the years since 1912 will be found in the *Labour Reports.* The quarterly figures show the number of persons who were out of work for three days or more during a specified week in each quarter, and the annual figures, the average of the four quarters; the returns do not include persons out of work through strikes or lock-outs, except those outside the industry concerned who are indirectly affected.

The highest percentage of unemployed (30.0) was recorded in the quarter ended June, 1932.

(iii) *Australia, Industrial Groups,* 1949 *and* 1950. Below are shown the percentages unemployed in industrial groups. Industries or occupations in which employment is stable, such as railways, and those which are subject to exceptional fluctuations, such as wharf labour, agricultural, pastoral, etc., are not included. Other occupations—domestic, hotel employees, etc.—are included in the " Other and Miscellaneous " group, as their returns are not sufficiently representative :—

UNEMPLOYMENT OF MEMBERS OF TRADE UNIONS IN INDUSTRIAL GROUPS : AUSTRALIA.

Industrial Group.	Unions Reporting.				Unemployed.			
	Number.		Members.		Number.		Proportion of members.	
	1949.	1950.	1949.	1950.	1949.	1950.	1949.	1950.
							%	%
Manufacturing—								
I. Wood, Furniture, etc. ..	16	16	25,864	27,038	652	118	2.5	0.4
II. Engineering, Metal Works, etc.	58	58	212,007	222,261	3,558	588	1.7	0.3
III. Food, Drink, Tobacco, etc. ..	54	54	49,723	50,690	1,282	988	2.6	1.9
IV. Clothing, Textiles, etc. ..	22	22	72,077	67,825	3,996	610	5.6	0.9
V. Books, Printing, etc. ..	12	12	29,486	28,732	123	48	0.4	0.2
VI. Other Manufacturing ..	62	62	56,865	63,615	1,787	1,024	3.1	1.6
VII. Building	46	46	86,873	92,662	988	974	1.1	1.1
VIII. Mining, Quarrying, etc. ..	19	17	23,172	24,639	583	868	2.7	3.5
X. Land Transport other than Railway and Tramway Services	13	13	41,827	51,993	445	373	1.1	0.7
IX., XI., XII., XIII., and XIV. Other and Miscellaneous ..	75	75	192,736	197,801	1,928	1,068	1.0	0.5
All Groups	377	375	790,630	827,256	*a* 15,342	6,659	*a* 2.0	0.8

(*a*) *See* note (*a*) to table on page 432.

(iv) *States,* 1949 *and* 1950. In making interstate comparisons of unemployment percentages, allowances must be made for the circumstance that the industries included in the returns from trade unions are not quite identical in the various States, and that for some States the returns are more representative than for others. The State percentages shown below, therefore, should not be read as indicating the relative degree of unemployment amongst unionists in the individual States but as an indication of the trend of unemployment as reported by the trade unions.

UNEMPLOYMENT OF MEMBERS OF TRADE UNIONS.

State.	Unions Reporting.				Unemployed.			
	Number.		Members.		Number.		Proportion of members.	
	1949.	1950.	1949.	1950.	1949.	1950.	1949.	1950.
							%	%
New South Wales	107	106	331,255	347,699	10,559	3,514	3.2	1.0
Victoria	74	74	222,958	228,723	1,719	1,523	0.7	0.7
Queensland	43	43	99,324	104,006	890	342	0.9	0.4
South Australia	54	53	71,641	76,326	1,[illegible]55	643	2.3	0.9
Western Australia	65	65	46,515	50,250	408	515	0.9	1.1
Tasmania	34	34	18,937	20,252	111	122	0.6	0.6
Australia	377	375	790,630	827,256	*a* 15,342	6,659	*a* 2.0	0.8

(*a*) *See* note (*a*) to table on page 432.

(v) *States*, 1939 *to* 1950. The following table gives the percentages in each State for 1939 and from 1946 to 1950:—

UNEMPLOYMENT OF MEMBERS OF TRADE UNIONS: PROPORTION UNEMPLOYED.

(Per cent.)

Period.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
1939 Year ..	11.0	10.4	5.9	9.3	7.1	8.1	9.7
1946 ,, ..	1.5	1.2	0.9	1.4	1.5	2.0	1.4
1947 ,, ..	1.3	1.2	0.7	1.0	1.2	2.3	1.2
1948 ,, ..	1.0	0.8	0.4	1.1	0.9	0.7	0.9
1949(*a*) ,, ..	3.2	0.7	0.9	2.3	0.9	0.6	2.0
1950 ,, ..	1.0	0.7	0.4	0.9	1.1	0.6	0.8
1939 March Quarter	10.6	10.8	6.1	9.3	7.3	7.6	9.6
June ,, ..	10.6	10.4	5.7	9.5	6.2	9.4	9.5
Sept. ,, ..	11.6	11.2	5.8	9.4	8.2	8.3	10.2
Dec. ,, ..	11.1	9.0	5.8	9.1	6.6	7.1	9.3
1948 March ,, ..	1.0	0.8	0.5	0.9	1.0	0.5	0.9
June ,, ..	1.0	0.8	0.5	1.0	1.0	0.5	0.9
Sept. ,, ..	0.9	1.0	0.4	1.2	0.8	0.7	0.9
Dec. ,, ..	0.9	0.7	0.3	1.1	0.7	1.0	0.8
1949 March ,, ..	0.9	0.7	0.4	0.8	0.8	0.5	0.8
June ,, ..	0.9	0.8	0.3	1.0	0.7	0.3	0.8
Sept.(*a*) ,, ..	10.2	0.9	2.7	6.5	1.3	0.7	5.5
Dec. ,, ..	1.0	0.6	0.3	0.9	0.7	0.8	0.8
1950 March ,, ..	1.1	0.7	0.3	0.7	1.0	0.6	0.8
June ,, ..	1.0	0.5	0.3	0.7	1.5	0.8	0.8
Sept. ,, ..	1.1	0.7	0.5	1.1	0.8	0.5	0.8
Dec. ,, ..	0.9	0.7	0.3	0.9	0.9	0.5	0.7

(*a*) *See* note (*a*) to table on page 432.

§ 3. Commonwealth Employment Service.

The Commonwealth Employment Service was established under Section 47 of the Re-establishment and Employment Act of 1945, and under the Social Services Legislation Declaratory Act 1947.

The principal function of this Service, as set out in Section 48 of the first-mentioned Act, is to provide services and facilities in relation to employment for the benefit of persons seeking to change employment, or to engage labour, and to provide facilities to assist in bringing about and maintaining a high and stable level of employment throughout the Commonwealth. The Act also gives the Service a number of specific functions in relation to the re-establishment of ex-servicemen.

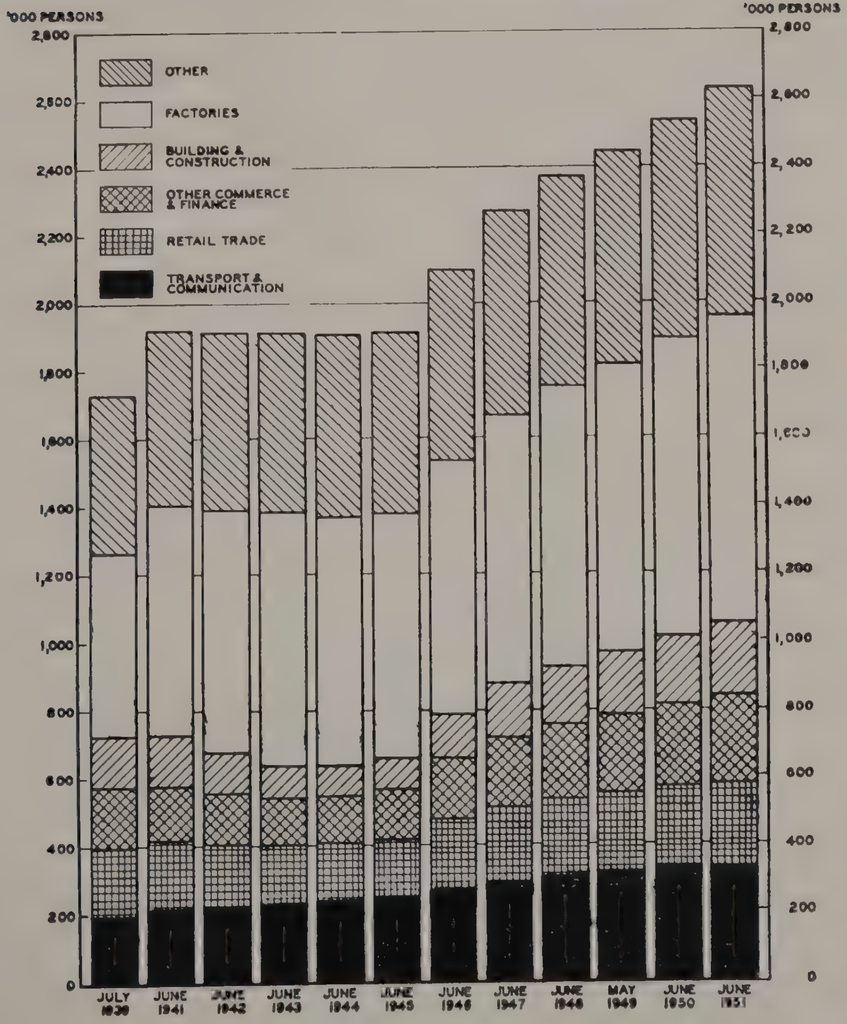
The Service also assists in the administration of the Unemployment and Sickness Benefits, provided under the Social Services Consolidation Act 1947, as well as the Re-Employment Allowance, provided under the Re-Establishment and Employment Act for certain classes of discharged members of the Forces. All persons who wish to claim unemployment benefits or re-employment allowances must register with their residential Employment Office which is responsible for checking the claim and arranging for payment of benefit, if appropriate, and if no suitable employment can be offered to the applicant.

While advice on employment problems is a function of all employment officers, the Service maintains in each State other than New South Wales, a staff of qualified psychologists providing free vocational guidance. (In New South Wales a similar service

WAGE AND SALARY EARNERS IN CIVILIAN EMPLOYMENT AUSTRALIA, 1939 TO 1951

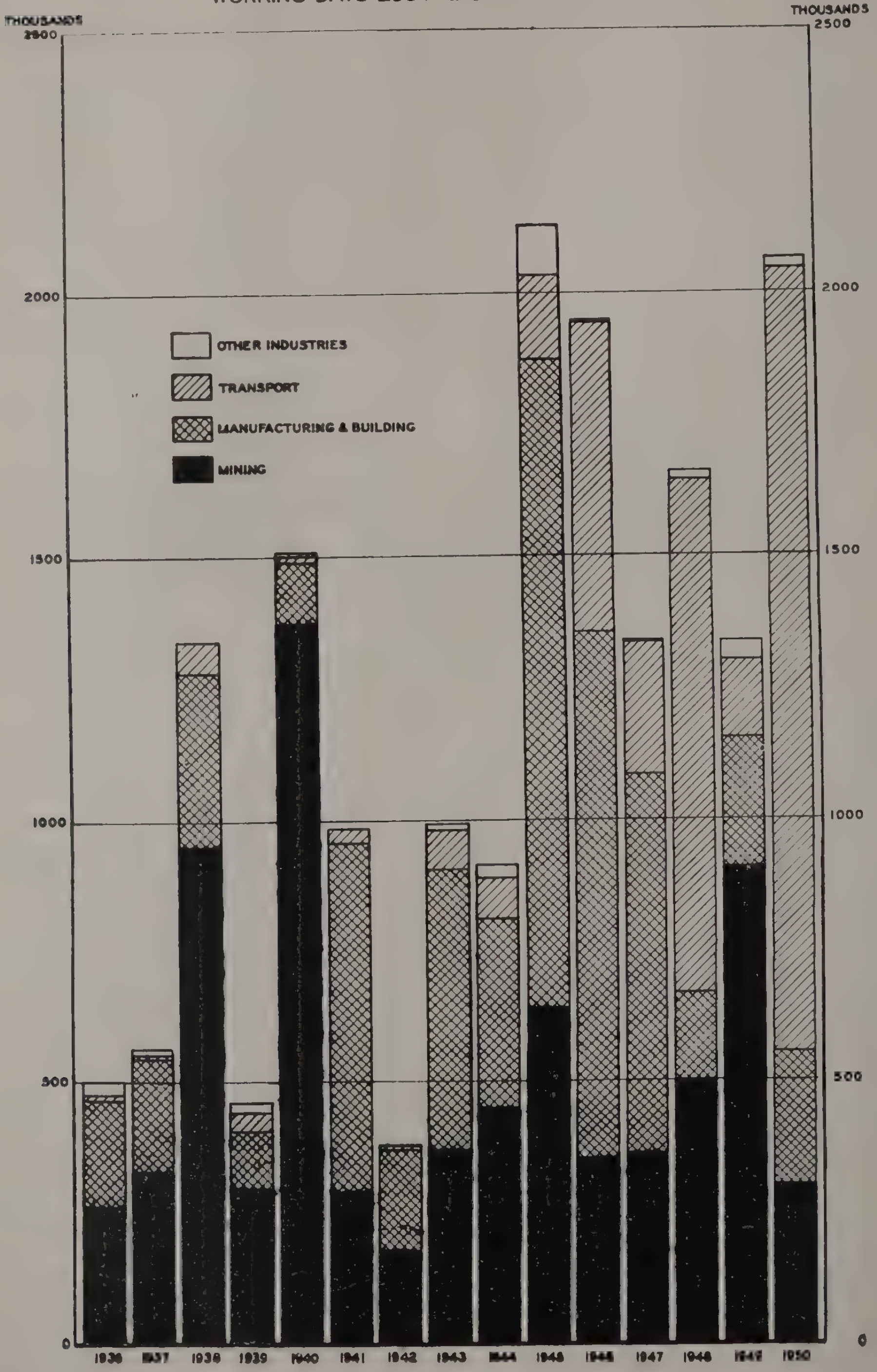
BY MAIN INDUSTRIAL GROUPS

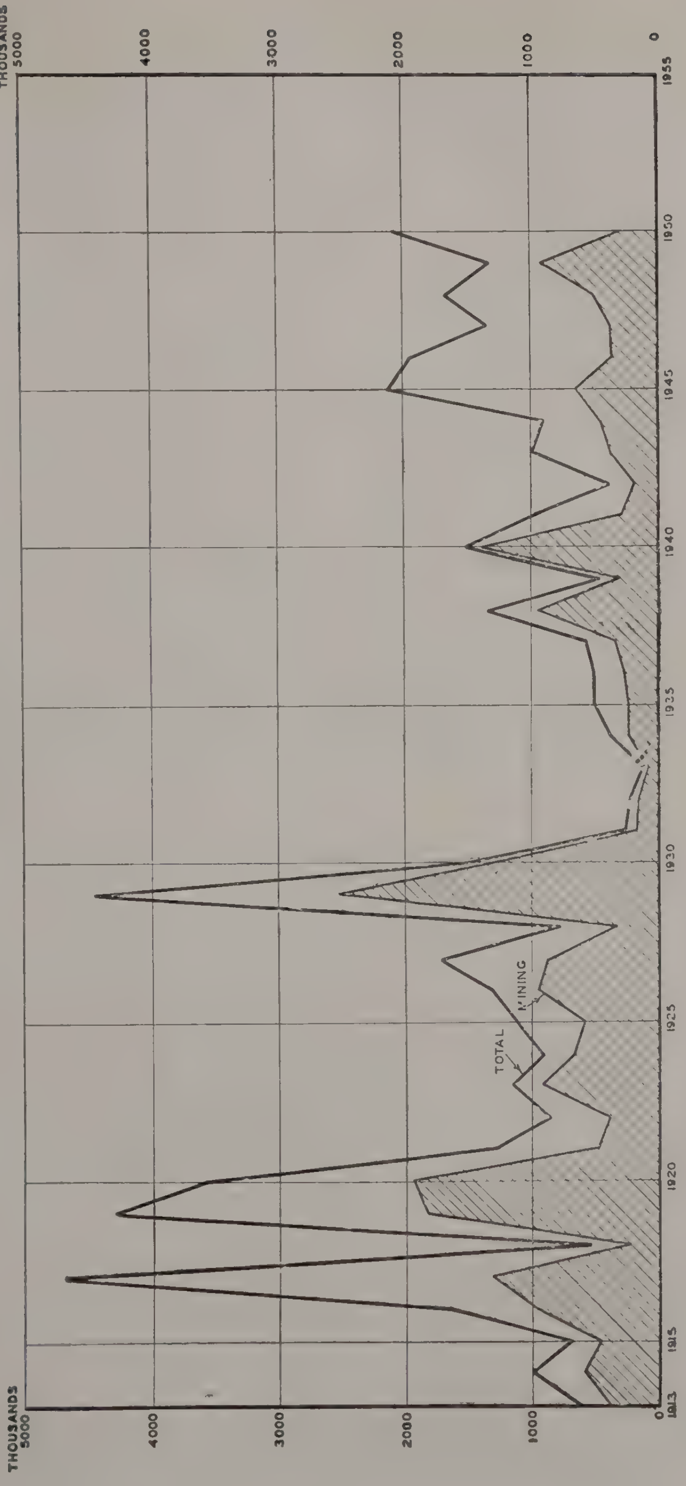
(EXCLUDING RURAL AND PRIVATE DOMESTIC WORKERS)



INDUSTRIAL DISPUTES: AUSTRALIA, 1936 TO 1950

WORKING DAYS LOST-INDUSTRIAL GROUPS.





INDUSTRIAL DISPUTES: AUSTRALIA, 1913 TO 1950

WORKING DAYS LOST

is provided by officers of the New South Wales Department of Labour and Industry and Social Welfare who act as agents for the Service in this regard.) While this Service is available to any individual, it is provided particularly for juveniles entering employment for the first time, for ex-servicemen and for physically and mentally handicapped persons. Invalid pensioners being considered by the Department of Social Services for training under the provisions of the Social Services Consolidation Act 1947–1951 are examined by the Vocational Guidance Branch before training is provided. During the twelve months ended June, 1951, the Service provided vocational guidance for 14,027 individuals.

Under the scheme operated by the International Refugee Organization for the resettlement of Displaced Persons from Europe following the 1939–45 War, the Commonwealth Employment Service is responsible for placing the workers amongst these people in employment where their services will be of most use in increasing production. Up to 30th June, 1951, a total of 98,658 Displaced Persons had been so placed.

Toward the middle of 1950 the Service assumed a new responsibility, that of placing migrants from Great Britain under the Commonwealth-Nominated Migration Scheme. The numbers coming forward under this scheme will increase as the Displaced Persons Scheme tapers off. Arrangements have also been made with the Dutch and Italian Governments to ensure a steady flow of European workers into the country.

The Service functions within the Employment Division of the Department of Labour and National Service, and is under the control of a Director of Employment. It functions on a decentralized basis. The Central Office is in Melbourne, and there are State Head Offices in each of the capital cities, with 124 District Employment Offices and Branches in suburban and the larger provincial centres, and with some 250 agents in the smaller country centres who are responsible to the various District Employment Offices. The District Offices and Branches are distributed as follows :—New South Wales, 47 ; Victoria, 32 ; Queensland, 20 ; South Australia, 10 (including Darwin) ; Western Australia, 11 ; Tasmania, 4.

The Service completed its fifth year of operation in May, 1951, and monthly average statistics of the principal items of business transacted during the year ended June, 1951, were as follows :—applicants for employment—new registrations 39,092, referred to employers 36,229, placed in employment 727,293 ; vacancies—new notifications 41,204, unfilled at end of month 121,942 ; and persons receiving advice or information 38,381.

§ 4. Industrial Disputes.

1. **General.**—Information with regard to the collection of particulars and the methods of tabulation of industrial disputes involving stoppage of work are given in previous issues of the Official Year Book, and also in the annual *Labour Reports* of this Bureau.

In *annual* tabulations particulars are included of all disputes which either *commenced* or were *current* during the year under review. As regards " number of disputes ", " establishments involved ", and " workpeople involved ", therefore, duplication will take place in respect of those disputes which started in and were unsettled at the end of a preceding year ; the number involved will, however, be indicated in a footnote, to permit of due allowance being made in any calculations made from the tables.

2. **Industrial Disputes Involving Stoppage of Work, Classified in Industrial Groups, 1950.**—The following table gives particulars of industrial disputes which either commenced or were current during 1950, classified according to industrial groups. Figures for 1949 may be found in *Labour Report* 1949, No. 38, page 122.

INDUSTRIAL DISPUTES IN INDUSTRIAL GROUPS, 1950.

Class.	Industrial Group.	Number.	Establishments Involved.	Workpeople Involved.			Working Days Lost.	Estimated Loss in Wages.
				Directly	Indirectly. (a)	Total.		
								£
	NEW SOUTH WALES.							
II.	Engineering, metal works, etc.	40	4,551	60,410	3,504	63,914	94,477	178,044
III.	Food, drink, etc.	15	16	3,033	..	3,033	14,136	23,909
V.	Books, printing, etc. ..	3	3	418	709	1,127	14,207	29,110
VI.	Other manufacturing ..	27	32	4,576	924	5,500	93,002	159,056
VII.	Building	12	14	1,111	72	1,183	5,805	12,721
VIII.	(i) Coal-mining	866	1,185	162,470	9,197	171,667	267,223	580,471
	(ii) Other mining, quarries, etc.	1	4	3,528	..	3,528	17,640	84,543
IX.	Railway and Tramway services	12	12	9,609	8,092	17,701	17,916	35,757
X.	Other land transport ..	5	5	1,189	..	1,189	2,465	5,509
XI.	Shipping, wharf labour, etc. ..	35	528	39,076	..	39,076	107,079	214,184
XIV.	Miscellaneous	14	1,015	3,849	..	3,849	5,355	10,634
	Total	1,030	7,365	289,269	22,498	311,767	639,305	1,333,938
	VICTORIA.							
II.	Engineering, metal works, etc.	2	2	190	..	190	210	370
III.	Food, drink, etc.	3	6	315	..	315	715	1,442
IV.	Clothing, textiles, etc. ..	1	1	94	..	94	470	800
VI.	Other manufacturing ..	1	8	55	..	55	55	100
VII.	Building	2	1,001	9,082	55	9,137	9,685	19,823
VIII.	(i) Coal-mining	2	2	1,120	..	1,120	3,920	8,900
IX.	Railway and tramway services	6	6	39,357	14,722	54.079	1,157,785	2,294,758
XI.	Shipping, wharf labour, etc. ..	12	112	8,205	49	8,254	29,402	58,478
XIII.	Domestic, hotels, etc. ..	1	1	20	..	20	120	93
XIV.	Miscellaneous	3	3	723	..	723	6,003	10,927
	Total	33	1,142	59,161	14,826	73,987	1,208,365	2,395,691
	QUEENSLAND.							
III.	Food, drink, etc.	4	4	2,554	389	2,943	6,271	9,598
V.	Books, printing, etc. ..	1	1	155	..	155	620	1,000
VII.	Building	1	1	16	..	16	240	446
VIII.	(i) Coal-mining	85	132	5,613	334	5,947	12,400	26,723
IX.	Railway and tramway services	2	2	4,437	1,669	6,106	27,034	50,724
XI.	Shipping, wharf labour, etc. ..	53	144	11,340	91	11,431	27,358	54,104
XIV.	Miscellaneous	1	1	42	..	42	84	126
	Total	147	285	24,157	2,483	26,640	74,007	142,721
	SOUTH AUSTRALIA.							
II.	Engineering, metal works, etc.	3	202	2,622	..	2,622	2,701	5,460
VI.	Other manufacturing ..	9	9	656	..	656	3,934	7,638
VII.	Building	1	1	120	..	120	240	480
IX.	Railway and tramway services	2	6	5,362	390	5,752	109,220	236,640
XI.	Shipping, wharf labour, etc. ..	13	32	2,606	12	2,618	3,243	6,486
XIV.	Miscellaneous	1	1	2,400	..	2,400	7,200	8,000
	Total	29	251	13,766	402	14,168	126,538	264,704
	WESTERN AUSTRALIA.							
I.	Wood, furniture, etc. ..	1	1	17	..	17	34	68
III.	Food, drink, etc.	3	3	300	..	300	440	841
VI.	Other manufacturing ..	1	1	14	..	14	14	28
VIII.	(ii) Other mining, quarries, etc.	1	1	67	..	67	134	268
IX.	Railway and tramway services	1	1	60	..	60	23	46
X.	Other land transport ..	2	2	88	..	88	82	170
XI.	Shipping, wharf labour, etc. ..	5	21	1,371	..	1,371	4,756	9,470
XIV.	Miscellaneous	1	1	35	..	35	245	600
	Total	15	31	1,952	..	1,952	5,728	11,491
	TASMANIA.							
II.	Engineering, metal works, etc.	1	1	7	11	18	270	476
III.	Food, drink, etc.	2	2	31	..	31	98	245
VI.	Other manufacturing ..	1	1	10	..	10	30	60
VII.	Building	4	4	304	..	304	2,217	4,283
IX.	Railway and tramway services	1	1	731	..	731	731	1,030
XI.	Shipping, wharf labour, etc. ..	10	36	2,006	..	2,006	5,101	10.202
	Total	19	45	3,089	11	3,100	8,447	16,296
	NORTHERN TERRITORY.							
VIII.	(ii) Other mining, quarries, etc.	1	1	43	..	43	430	1,450
	AUSTRALIAN CAPITAL TERRITORY.							
VII.	Building	1	1	8	..	8	32	64
XIII.	Domestic, hotels, etc. ..	1	1	36	..	36	36	63
	Total	2	2	44	..	44	68	127

(a) Persons thrown out of work at the establishments where the stoppages occurred but not themselves parties to the dispute.

INDUSTRIAL DISPUTES IN INDUSTRIAL GROUPS, 1950—*continued.*

Class.	Industrial Group.	Number.	Establishments Involved.	Workpeople Involved.			Working Days Lost.	Estimated Loss in Wages.
				Directly.	Indirectly. (*a*)	Total.		
	AUSTRALIA.							£
I.	Wood, furniture, etc. ..	1	1	17	..	17	34	68
II.	Engineering, metal works, etc.	46	4,756	63,229	3,515	66,744	97,658	184,350
III.	Food. drink, etc.	27	31	6,233	389	6,622	21,660	36,035
IV.	Clothing, textiles, etc. ..	1	1	94	..	94	470	800
V.	Books, printing, etc. ..	4	4	573	709	1,282	14,827	30,110
VI.	Other manufacturing ..	39	51	5,311	924	6,235	97,035	166,882
VII.	Building	21	1,022	10,641	127	10,768	18,219	37,817
VIII.	(i) Coal-mining	953	1,319	169,203	9.531	178,734	283,543	616,094
	(ii) Other mining, quarries, etc.	3	6	3,638	..	3,638	18,204	86,261
IX.	Railway and tramway services	24	28	59,556	24,873	84,429	1,312,709	2,618,955
X.	Other land transport ..	7	7	1,277	..	1,277	2,547	5,679
XI.	Shipping, wharf labour, etc. ..	128	873	64,604	152	64,756	176,939	352,924
XIII.	Domestic, hotels, etc. ..	2	2	56	..	56	156	156
XIV.	Miscellaneous	20	1,021	7,049	..	7,049	18,887	30,287
	Total	1,276	9,122	391,481	40,220	431,701	2,062,888	4,166,418

(*a*) Persons thrown out of work at the establishments where the stoppages occurred but not themselves parties to the dispute.

The following dispute commenced in and was uncompleted at the end of 1949 and the figures shown in the table below are included in the statistics of both 1949 and 1950.

State.	Number of Disputes.	Establishments Involved.	Number of Employees Involved.		
			Directly.	Indirectly.	Total.
New South Wales	1	1	183	..	183

3. **Industrial Disputes, Australia, 1939, 1946 to 1950.**—The following table gives particulars of the number of industrial disputes, the number of workpeople involved, and the losses in working days and wages caused by disputes which either commenced or were current during each of the years 1939 and 1946 to 1950, classified according to industrial groups.

Satisfactory comparisons of the frequency of industrial disputes in classified industries can be made only after omitting those which are recorded for coal-mining (Group VIII.(i)). For 1913 the number of disputes in the mining industry represented practically 50 per cent. of the total number recorded. In subsequent years the proportion remained high ranging from 45 per cent. in 1917 and 1918 to 85 per cent. in 1948. In the five years 1946 to 1950 working days lost through dislocations involving workpeople engaged in coal-mining amounted to 2,334,560, representing 28 per cent. of the total toss of working days during the period.

INDUSTRIAL DISPUTES: AUSTRALIA.

Year.		Manufacturing. (Groups I. to VI.)	Building. (Group VII.)	Mining. (Group VIII.)		Transport, Land and Sea. (Groups IX. to XI.)	Miscellaneous. (Groups XII. to XIV.)	ALL GROUPS.
				(i) Coal-mining.	(ii) Other Mining, etc.			
				NUMBER.				
1939..	..	20	3	362	4	6	21	416
1946..	..	92	6	684	3	71	13	869
1947..	..	69	16	818	1	69	9	982
1948..	..	60	13	974	2	68	24	1,141
1949..	..	68	3	644	3	122	9	849
1950..	..	118	21	953	3	159	22	1,276
				WORKPEOPLE INVOLVED.				
1939..	..	8,818	57	137,792	900	2,017	3,246	152,830
1946..	..	55,225	554	163,954	669	126,378	1,768	348,548
1947..	..	35,475	39,114	192,390	500	58,483	1,175	327,137
1948..	..	17,347	2,612	198,849	1,360	92,395	4.586	317,149
1949..	..	25,358	284	146,948	928	78,165	12,894	264,577
1950..	..	80,994	10,768	178,734	3,638	150,462	7,105	431,701
				WORKING DAYS LOST.				
1939..	..	108,709	563	291,067	3,805	35,016	19,994	459,154
1946..	..	993,830	5,552	350,366	3,570	590,159	4,367	1,947,844
1947..	..	559,524	159,443	357,747	5,000	251,251	5,763	1,338,728
1948..	..	156,109	10,099	474,571	32,000	975,168	14,739	1,662,686
1949..	..	243,197	573	868,333	39,152	147,278	35,457	1,333,990
1950..	..	231,684	18,219	283,543	18,204	1,492,195	19,043	2,062,888
				ESTIMATED LOSS IN WAGES. (£.)				
1939..	..	83,540	424	335,033	4,728	22,114	9,877	455,716
1946..	..	1,082,683	7,120	533,202	4,525	658,085	4,532	2,290.147
1947..	..	713,407	238,939	566,115	7,000	364,395	8,229	1,898,085
1948..	..	242.948	16,719	882,527	60,932	1,073,867	22,121	2,299,114
1949..	..	445,303	1,171	1,741,238	80,300	280,056	63,468	2,611,536
1950..	..	418,245	37,817	616,094	86,261	2,977,558	30,443	4,166,418

4. **Summary of Disputes (involving Stoppage of Work), 1939, 1946 to 1950.**—The following table gives particulars of the number of industrial disputes in each State in the years 1939 and 1946 to 1950 together with the workpeople involved, the working days lost, and the estimated loss in wages.

INDUSTRIAL DISPUTES : SUMMARY.

State or Territory.	Year.	Number.	Establishments Involved.	Workpeople Involved.			Working Days Lost.	Estimated Loss in Wages.
				Directly.	Indirectly. (a)	Total.		£
New South Wales	1939	386	460	139,301	9,230	148,531	410,183	419,330
	1946	771	1,389	220,452	9,048	229,500	719,557	941,983
	1947	921	2,731	254,587	43,211	297,798	919,411	1,360,632
	1948	1,071	1,832	235,473	7,036	242,509	644,961	1,155,940
	1949	739	3,428	197,367	3,526	200,893	1,005,285	1,981,769
	1950	1,030	7,365	289,269	22,498	311,767	639,305	1,333,938
Victoria	1939	10	10	1,989	180	2,169	27,313	19,946
	1946	35	326	74,217	2,600	76,817	507,290	543,655
	1947	17	233	6,005	1,929	7,934	334,185	417,426
	1948	21	82	41,734	155	41,889	159,903	240,634
	1949	20	193	22,018	..	22,018	60,112	115,883
	1950	33	1,142	59,161	14,826	73,987	1,208,365	2,395,691
Queensland	1939	5	6	373	2	375	1,870	1,753
	1946	22	90	23,322	90	23,412	613,689	694,453
	1947	13	24	11,944	20	11,964	31,245	45,953
	1948	12	27	13,734	7,797	21,531	815,107	833,269
	1949	38	234	26.184	87	26,271	183,333	351,985
	1950	147	285	24,157	2,483	26,640	74,007	142,721
South Australia ..	1939	2	2	170	5	175	1,880	1,416
	1946	18	33	8,941	1,286	10,227	29.014	31,525
	1947	17	35	4,821	832	5,653	39,654	53,916
	1948	21	28	5,891	1,136	7,027	30,264	47.138
	1949	18	45	5,845	147	5,992	28,318	51,541
	1950	29	251	13,766	402	14,168	126,538	264,704
Western Australia	1939	7	7	1,108	145	1,253	14,100	9,578
	1946	11	18	2,704	3,659	6,363	69,634	68,329
	1947	7	12	1,759	7	1,766	6,070	8,622
	1948	9	26	2,356	..	2,356	7,836	15,296
	1949	16	33	5,564	97	5,661	26,287	52,421
	1950	15	31	1,952	..	1,952	5,728	11,491
Tasmania	1939	4	4	53	..	53	166	93
	1946	8	15	1,675	..	1,675	6,646	7,056
	1947	6	17	1,152	220	1,372	5,563	7,636
	1948	4	5	468	..	468	950	1,473
	1949	15	48	3,503	..	3,503	29,316	55,319
	1950	19	45	3,089	11	3,100	8,447	16,296
Northern Territory	1939	2	16	234	40	274	3,642	3,600
	1946	2	2	527	..	527	1,957	3,100
	1947	..	..	..	..	..	..	..
	1948	3	82	1,369	..	1,369	3,665	5,364
	1949	2	2	200	..	200	1,261	2,522
	1950	1	1	43	..	43	430	1,450
Australian Capital Territory	1939	..	..	..	..	..	..	..
	1946	2	9	27	..	27	57	46
	1947	1	6	450	200	650	2,600	3,900
	1948	..	..	..	..	..	..	..
	1949	1	1	39	..	39	78	96
	1950	2	2	44	..	44	68	127
Australia..	1939	416	505	143,228	9,602	152,830	459,154	455,716
	1946	869	1,882	331,865	16,683	348,548	1,947,844	2,290,147
	1947	982	3,058	280,718	46,419	327,137	1,338,728	1,898,085
	1948	1,141	2,082	301,025	16,124	317,149	1,662,686	2,299,114
	1949	849	3,984	260,720	3,857	264,577	1,333,990	2,611,536
	1950	1,276	9,122	391,481	40,220	431,701	2,062,888	4,166,418

(a) Persons thrown out of work at the establishments where the stoppages occurred but not themselves parties to the dispute.

Detailed information in regard to the disputes during the above-mentioned and previous years is given in the *Labour Reports* issued by this Bureau.

5. **Duration of Industrial Disputes, 1950.**—The following table gives particulars of industrial disputes during 1950 according to certain adopted limits of duration. A table giving details for 1949 may be found in *Labour Report*, 1949, No. 38, page 127.

INDUSTRIAL DISPUTES : DURATION, AUSTRALIA, 1950.

Limits of Duration.	Number.	Workpeople Involved.			Working Days Lost.	Estimated Loss in Wages.
		Directly.	Indirectly. (*a*)	Total.		£
1 day and less	809	248,359	18,642	267,001	254,054	508,392
2 days and more than 1 day	189	46,627	949	47,576	71,886	146,074
3 „ „ „ 2 days	82	15,202	8,324	23,526	65,492	129,989
Over 3 days and less than 1 week	58	21,726	383	22,109	72,471	147,726
1 week and less than 2 weeks	73	12,175	2,133	14,308	82,215	222,061
2 weeks „ „ 4 weeks	45	19,756	1,449	21,205	177,291	342,669
4 „ „ „ 8 weeks	13	5,475	981	6,456	119,375	256,036
8 weeks and over	7	22,161	7,359	29,520	1,220,104	2,413,471
Total	1,276	391,481	40,220	431,701	2,062,888	4,166,418

(*a*) Persons thrown out of work at the establishments where the stoppages occurred but not themselves parties to the dispute.

6. **Causes of Industrial Disputes, 1913, 1939, 1946 to 1950.**—The following table shows the principal causes of the industrial disputes which occurred in 1913, 1939 and 1946 to 1950 :—

INDUSTRIAL DISPUTES : CAUSES, AUSTRALIA.

Cause of Dispute.	1913.	1939.	1946.	1947.	1948.	1949.	1950.
				NUMBER.			
1. Wages—							
(*a*) For increase	42	13	30	26	30	36	59
(*b*) Against decrease . .	4	4	. .	4	1	1	6
(*c*) Other wage questions . .	31	58	112	178	153	132	189
2. Hours of Labour—							
(*a*) For reduction	3	12	2	2	1	. .	. .
(*b*) Other disputes re hours	7	9	14	15	11	18	23
3. Trade Unionism—							
(*a*) Against employment of non-unionists . .	8	1	1	9	1	4	8
(*b*) Other union questions . .	5	48	64	46	37	55	43
4. Employment of Particular Classes or Persons	44	107	205	104	153	114	324
5. Working Conditions	51	90	273	254	388	214	306
6. Sympathy	5	1	12	16	38	25	30
7. Other Causes	8	73	156	328	328	250	288
Total	208	416	869	982	1,141	849	1,276

INDUSTRIAL DISPUTES: CAUSES, AUSTRALIA—*continued.*

Cause of Dispute.	1913.	1939.	1946.	1947.	1948.	1949.	1950.
WORKPEOPLE INVOLVED.							
1. Wages—							
(*a*) For increase	8,633	4,384	91,423	11,666	29,898	33,577	19,000
(*b*) Against decrease ..	563	279	..	970	19	629	476
(*c*) Other wage questions ..	7,160	17,094	27,903	53,273	44,905	28,128	65,122
2. Hours of Labour—							
(*a*) For reduction	460	4,150	249	463	160	..	..
(*b*) Other disputes re hours..	1,819	3,383	8,888	19,811	6,448	5,487	7,778
3. Trade Unionism—							
(*a*) Against employment of non-unionists ..	5,370	21	116	4,884	7	1,999	443
(*b*) Other union questions ..	1,418	16,030	11,970	12,134	8,069	8,255	5,083
4. Employment of Particular Classes or Persons	11,370	28,691	58,133	25,954	45,903	18,936	67,772
5. Working Conditions	10,785	28,092	95,900	64,734	65,042	30,026	46,649
6. Sympathy	947	2,600	10,849	30,037	18,175	3,980	28,698
7. Other Causes..	1,758	48,106	43,117	103,211	98,523	133,560	190,680
Total	50,283	152,830	348,548	327,137	317,149	264,577	431,701
WORKING DAYS LOST.							
1. Wages—							
(*a*) For increase	100,069	24,115	555,529	345,453	776,298	887,259	402,426
(*b*) Against decrease ..	9,438	4,472	..	3,548	361	2,516	3,126
(*c*) Other wage questions ..	78,183	67,550	72,473	166,918	185,499	114,596	1,048,439
2. Hours of Labour—							
(*a*) For reduction	2,774	21,636	15,246	1,601	320	..	..
(*b*) Other disputes re hours..	15,111	10,752	63,936	116,122	52,563	15,386	14,161
3. Trade Unionism—							
(*a*) Against employment of non-unionists ..	91,002	63	232	47,264	133	11,676	978
(*b*) Other union questions ..	32,388	52,086	47,419	48,092	34,090	12,588	11,258
4. Employment of Particular Classes or Persons	191,723	81,101	699,542	182,650	227,800	60,682	230,714
5. Working Conditions	73,562	108,409	325,686	123,976	132,811	58,073	110,644
6. Sympathy	24,066	2,600	95,248	34,113	110,154	12,890	33,701
7. Other Causes..	5,212	86,370	72,533	268,991	142,657	158,324	207,441
Total	623,528	459,154	1,947,844	1,338,728	1,662,686	1,333,990	2,062,888

The main causes of industrial disputes are "Wage" questions, "Working Conditions," and "Employment of Particular Classes or Persons." In each of the years 1913 to 1925 with the exception of 1922, the number of dislocations concerning "Wages" exceeded those caused by any other question. From 1913 to 1950 the proportions varied between 19 per cent. in 1942 and 45 per cent. in 1916. Since 1925 the number of disputes concerning "Wages" has averaged about 20 per cent. of the total number for each year. The majority of the dislocations of work classified under the heading, "Employment of Particular Classes or Persons," are stoppages for the purpose of protesting against the dismissal of certain employees, who, in the opinion of their fellow-workers, have been unfairly treated or victimized. This class of dispute occurs very frequently in the coal-mining industry, and was the principal cause of industrial disturbance in most of the years from 1925 to 1942, averaging about 30 per cent. of the total number for each year during that period. Since 1942 the number of dislocations classified under the heading "Working Conditions" and "Other Causes" has increased proportionately, the percentages of the total in 1950 being 24 and 23 respectively. The number of disputes over "Trade Union" questions has averaged below 10 per cent. of the total number of disputes during the years under review. Stoppages of work concerning "Hours of Labour" increased during 1926 and 1927, but have been relatively unimportant during recent years.

The numbers of disputes concerning "Wages" were 169 in 1949 and 254 in 1950 representing 20 per cent. of the total in both years. Stoppages concerning "Employment of Particular Classes or Persons" numbered 114 in 1949 and 324 in 1950, 13 per cent. and 25 per cent. respectively of the totals, and those concerning "Working

Conditions" 214 in 1949 and 306 in 1950 or 25 per cent. and 24 per cent. respectively. Disputes classified under these three headings numbered 497 or 59 per cent. of the total dislocations during the year 1949 and 884 or 69 per cent. in 1950.

7. **Results of Industrial Disputes.**—The results of industrial disputes during 1939 and each of the years 1946 to 1950 are shown in the following table :—

INDUSTRIAL DISPUTES CLASSIFIED ACCORDING TO RESULTS(*a*) : AUSTRALIA.

Year.	Number.				Workpeople Involved.				Working Days Lost.			
	In Favour of Workpeople.	In Favour of Employer.	Compromise.	Indefinite.	In Favour of Workpeople.	In Favour of Employer.	Compromise.	Indefinite.	In Favour of Workpeople.	In Favour of Employer.	Compromise.	Indefinite.
1939..	75	302	19	20	22,517	117,445	6,233	6,635	104,192	256,602	43,569	54,791
1946..	167	621	7	69	43,912	191,000	34,987	74,342	218,411	416,350	236,183	865,915
1947..	146	687	71	78	68,595	174,724	36,008	47,810	275,608	475,285	482,769	105,066
1948..	111	922	22	83	25,374	219,349	20,318	51,489	210,456	371,527	788,843	263,975
1949..	116	642	26	64	23,022	187,352	11,977	42,043	103,387	263,462	195,982	770,793
1950..	173	760	46	293	34,087	213,537	8,106	175,594	89,598	1,607,818	123,437	237,738

(*a*) As there are usually unfinalized disputes at the end of each year totals in the above table will not necessarily agree with those shown in preceding tables.

8. **Methods of Settlement.**—The following table gives a classification of the methods of settlement according to the adopted schedule :—

INDUSTRIAL DISPUTES : METHODS OF SETTLEMENT(*a*), AUSTRALIA.

Method of Settlement.	1913.	1939.	1946.	1947.	1948.	1949.	1950.
			NUMBER.				
Negotiation—							
Direct between employers and employees or their representatives	119	277	385	265	277	250	346
By intervention or assistance of distinctive third party—not under Commonwealth or State Industrial Act	17	17	89	90	83	46	1
Under State Industrial Act—							
By intervention, assistance, or compulsory conference ..	19	5	5	7	22	14	23
By reference to Board or Court ..	22	2	19	96	106	36	18
Under Commonwealth Conciliation and Arbitration Act—							
By intervention, assistance, compulsory conference or reference to a Board or Court	4	6	19	36	11	54	120
By filling places of workpeople on strike or locked out	13	1	3	1	1	..	..
By closing down establishment permanently	1	2	..	..	..	..	..
By other methods	13	106	344	487	638	448	764
Total	208	416	864	982	1,138	848	1,272

(*a*) *See* note to previous table.

INDUSTRIAL DISPUTES: METHODS OF SETTLEMENT(*a*), AUSTRALIA —*continued*.

Method of Settlement.	1913.	1939.	1946.	1947.	1948.	1949.	1950.
WORKPEOPLE INVOLVED.							
Negotiation—							
Direct between employers and employees or their representatives	23,357	80,195	86,174	48,788	68,199	38,993	74,364
By intervention or assistance of distinctive third party—not under Commonwealth or State Industrial Act	3,172	2,489	57,768	19,243	23,455	5,885	449
Under State Industrial Act—							
By intervention, assistance, or compulsory conference ..	6,505	4,925	724	4,774	18,568	7,272	2,861
By reference to Board or Court ..	12,774	429	6,483	66,998	29,100	19,731	3,453
Under Commonwealth Conciliation and Arbitration Act—							
By intervention, assistance, compulsory conference or reference to a Board or Court	659	3,268	10,059	23,497	19,573	38,187	58,147
By filling places of workpeople on strike or locked out	658	20	130	25	18	..	
By closing down establishment permanently	170	178	..	..	..	..	..
By other methods	2,988	61,326	182,003	163,812	157,617	154,326	292,050
Total	50,283	152,830	344,241	327,137	316,530	264,394	431,324
WORKING DAYS LOST.							
Negotiation—							
Direct between employers and employees or their representatives	94,400	245,709	265,401	126,574	163,397	210,054	425,639
By intervention or assistance of distinctive third party—not under Commonwealth or State Industrial Act	26,335	52,943	339,481	78,332	118,582	36,465	5,388
Under State Industrial Act—							
By intervention, assistance, or compulsory conference ..	187,871	35,647	12,539	22,356	164,069	46,090	13,428
By reference to Board or Court ..	221,769	3,366	116,681	372,013	186,081	99,910	26,841
Under Commonwealth Conciliation and Arbitration Act—							
By intervention, assistance, compulsory conference or reference to a Board or Court.. ...	2,105	46,450	147,509	441,317	790,303	764,983	1,199,993
By filling places of workpeople on strike or locked out	14,139	20	7,552	50	36	..	
By closing down establishment permanently	20,400	3,892	..	..	..	..	..
By other methods	56,509	71,127	847,696	298,086	212.333	176,122	387,302
Total	623,528	459,154	1,736,859	1,338,728	1,634,801	1,333,624	2,058,591

(*a*) *See* note to previous table.

Prior to 1947 the majority of disputes were settled by direct negotiation between employers and employees, the proportion so settled since 1913 ranging between 39 per cent. in 1942 and 78 per cent. in 1937. In 1949 and 1950, however, the majority of disputes were settled by "Other methods". The percentage settled by direct negotiations was 29 in 1949 and 27 in 1950. The proportion of dislocations settled by compulsory conferences or the intervention and assistance of officials under State or Commonwealth Arbitration Acts has varied considerably during the period under review, ranging between 3 per cent. in 1915 and 22 per cent. in 1913. The proportion was 12 per cent. in 1949 and 13 per cent. in 1950. In connexion with the comparatively large number of disputes which are classified as having been settled "By other methods", many stoppages of work occur each year, principally at collieries, but the cause of such stoppages is not officially known to the employers or their representatives. Such stoppages usually last for one day, and work is resumed without negotiations for a settlement of the trouble. In 1949 the percentage of disputes settled by "Other methods" rose to 53 while the percentage in 1950 was 60, the highest recorded for that class of settlement.

F. ASSOCIATIONS.

Labour Organizations.

1. **Registration.**—(i) *Under Trade Union Acts.* The benefits obtained by registering trade unions under the Trade Union Acts in force in the various States are not considered of much value, consequently the statistics of registered trade unions of employees do not accurately represent the position of unionism. Further, the returns for past years are so defective as to be practically valueless, inasmuch as no reliable indication is afforded of the numerical and financial position of the unions. Some of the registered unions fail to supply returns; this non-supply may lead to cancellation of the registration. Others have obtained the cancellation of their certificates of registration, the apparent reason being that they proposed to register under the Commonwealth Conciliation and Arbitration Act or a State Arbitration Act. In Queensland, some of the largest labour unions withdrew from registration during 1911, mainly on account of the necessity for closer restriction of their objects as set forth in their rules, consequent on legal decisions affecting trade unions. In Victoria and in South Australia very few of the existing unions are registered under the Trade Union Acts. It will be seen, therefore, that the available information under this heading is too meagre for statistical purposes.

(ii) *Under Industrial Arbitration Acts.* Information with regard to registrations of employers' associations and trade unions under the various State Industrial Arbitration Acts will be found in previous issues of the Official Year Book. The latest information available as to registrations is as follows:—New South Wales, 220 industrial unions of employers and 161 industrial unions of employees, the membership not being available in either case; Queensland, 22 industrial unions of employers with approximately 24,738 members, and 76 industrial unions of employees with approximately 246,072 members; South Australia, 38 organizations of employees with approximately 58,654 members; Western Australia, 37 organizations of employers with 1,506 members and 134 organizations of employees with approximately 78,713 members. There is no provision in the South Australian Industrial Acts for the registration of organizations of employers and in Victoria and Tasmania, where Wages Board systems of wage fixation are in operation, organizations of employers and employees are not required to register. Registration under Commonwealth legislation began in 1906. In that and the four years following, there was but one union of employers; another was registered in 1911. The unions of employees registered in 1906 were 20, with 41,413 members. At the end of 1950 the number of employers' organizations registered under the provisions of the Commonwealth Conciliation and Arbitration Act was 52. The number of unions of employees registered at the end of 1950 was 146, with a membership of approximately 1,331,379 representing 83 per cent. of the total membership of all trade unions in Australia.

2. **Particulars regarding Trade Unions.**—(i) *Types.* The trade unions in Australia are very diverse in character, and range from the small independent association to the large interstate organization, which, in its turn, may be a branch of an international body. Broadly speaking, there are four distinct classes of labour organizations:—(i) the local independent; (ii) the State; (iii) the interstate; and (iv) the Australasian or international; but a number of variations occur from each of these classes. The schemes of organization

of interstate or federated unions vary greatly in character. In some unions the State organizations are bound together under a system of unification with centralized control, while in others the State units are practically independent and self-governing, the federal bond being loose and existing only for one or two specified purposes. The leading characteristics of each of these types are briefly outlined in *Labour Report* No. 2 (pp. 7–9) issued by this Bureau.

(ii) *Number and Membership.* As already stated, the figures for trade unions registered under the Acts do not represent the position of unionism in Australia. In 1912 the Labour and Industrial Branch of the Commonwealth Bureau of Census and Statistics was established and with the cordial co-operation of the officials of the labour organizations comprehensive figures relating to the development of organized labour are now available. The following table shows the position at the end of 1949 and 1950 :—

TRADE UNIONS : NUMBER AND MEMBERSHIP, 1949 AND 1950.

State or Territory.	Number of Separate Unions.		Number of Members.	
	1949.	1950.	1949.	1950.
New South Wales	212	222	606,139	642,145
Victoria	150	152	382,503	406,317
Queensland	125	128	259,339	262,586
South Australia	138	138	127,292	137,504
Western Australia	152	156	97,706	103,582
Tasmania	97	98	40,700	45,044
Northern Territory ..	12	14	2,860	2,438
Australian Capital Territory	21	28	4,375	5,728
Australia	(a) 349	(a) 360	1,520,914	1,605,344

(a) Without interstate duplication. *See* letterpress below.

In the table just given, under the heading " Number of Separate Unions ", a union with members in a State is counted as one union within that State. The figures by States do not add to the Australian total (shown in the last line) because a union represented in more than one State is included in the figure for each State in which it is represented, but is counted only once in the Australian total.

Because of the difficulties involved, the collection of statistics relating to the " Number of Branches " of Trade Unions appearing in previous issues of this publication, has now been discontinued.

(iii) *Classification in Industrial Groups.* The following table shows the number of unions and members therof in Australia at the end of each of the years 1939 and 1946 to 1950. Compared with 1939, membership in 1950 had increased by 75 per cent.

The only industrial group in which membership in 1950 was less than in 1939 was " Mining, Quarrying, etc." ; all other groups registered increases. In 1950 increases were recorded in all groups except " Food, Drink, Tobacco, etc. " and " Domestic, Hotels, etc." where decreases occurred.

TRADE UNIONS : INDUSTRIAL GROUPS, AUSTRALIA.

Industrial Group.	1939.	1946.(*a*)	1947.(*a*)	1948.(*a*)	1949.	1950.
NUMBER OF UNIONS.						
Manufacturing—	(*b*)	(*b*)	(*b*)	(*b*)	(*b*)	(*b*)
I. Wood, Furniture, etc.	4	4	4	4	6	6
II. Engineering, Metal Works, etc. ..	22	23	22	19	16	16
III. Food, Drink, Tobacco, etc. ..	35	37	38	33	33	35
IV. Clothing, Textiles, etc.	12	9	9	7	6	6
V. Books, Printing, etc.	8	10	10	8	6	6
VI. Other Manufacturing	37	38	38	30	36	38
VII. Building	28	24	24	25	25	26
VIII. Mining, Quarrying, etc.	13	15	15	12	11	12
IX. Railway and Tramway Services ..	29	31	31	26	26	26
X. Other Land Transport	6	7	7	9	9	9
XI. Shipping, etc.	21	20	20	19	15	13
XII. Pastoral, Agricultural, etc. ..	5	3	3	3	4	4
XIII. Domestic, Hotels, etc.	18	18	18	15	14	14
XIV. Miscellaneous—						
(i) Banking, Insurance and Clerical	20	16	16	20	16	17
(ii) Public Service	50	55	57	59	54	56
(iii) Retail and Wholesale ..	8	10	11	10	11	12
(iv) Municipal, Sewerage and Labouring	11	11	12	9	10	11
(v) Other Miscellaneous ..	53	61	60	56	51	53
Total	380	392	395	364	349	360
NUMBER OF MEMBERS.						
Manufacturing—						
I. Wood, Furniture, etc.	27,990	31,952	35,250	36,559	39,162	39,991
II. Engineering, Metal Works, etc. ..	99,731	201,093	206,056	217,165	226,952	234,715
III. Food, Drink, Tobacco, etc. ..	80,328	81,686	85,960	91,636	98,564	98,029
IV. Clothing, Textiles, etc.	68,847	99,211	113,664	121,175	123,039	127,559
V. Books, Printing, etc.	22,303	28,592	29,122	29,788	32,374	33,641
VI. Other Manufacturing	52,074	64,805	66,239	64,251	67,432	81,766
VII. Building	45,651	78,066	82,716	93,291	100,225	112,050
VIII. Mining, Quarrying, etc.	48,812	42,838	44,441	45,959	45,688	47,812
IX. Railway and Tramway Services ..	105,938	128,426	128,816	137,318	134,513	140,086
X. Other Land Transport	19,488	30,084	31,903	44,404	50,600	56,276
XI. Shipping, etc.	28,760	34,181	34,708	35,497	40,520	43,520
XII. Pastoral, Agricultural, etc... ..	40,276	37,756	39,610	48,631	52,687	56,735
XIII. Domestic, Hotels, etc.	13,177	37,783	41,052	37,657	36,914	30,334
XIV. Miscellaneous—						
(i) Banking, Insurance and Clerical	39,013	83,336	88,055	94,091	97,093	101,391
(ii) Public Service	89,848	134,889	151,697	164,723	165,762	174,097
(iii) Retail and Wholesale ..	36,290	43,048	47,374	48,960	52,528	53,685
(iv) Municipal, Sewerage and Labouring	46,552	52,705	55,382	61,154	62,761	70,635
(v) Other Miscellaneous ..	50,392	73,911	83,448	83,549	94,100	103,022
Total	915,470	1,284,362	1,365,493	1,455,808	1,520,914	1,605,344

(*a*) Figures revised. (*b*) Without interstate duplication. *See* previous page.

(iv) *Trade Unions : Numbers of Male and Female Members and Ratio to Total Wage and Salary Earners, Australia.* Prior to 1939 the numbers of male and female wage and salary earners (including unemployed) aged 20 years and over were estimated by increasing the numbers of such persons enumerated at the 1933 Census in ratio to the annual increases in males and females aged 20 to 64 years. Similarly, for wage and salary earners (including unemployed) under 20 years the numbers of such persons at the 1933 Census were increased in ratio to the annual increases in males and females 15 to 19 years. Further, allowance was made for (*a*) increase in the proportion of females who became wage and salary earners and (*b*) youths and girls who were without occupation but were not recorded in the wage-earning group at the 1933 Census. While the foregoing method of estimation would produce fairly accurate results during normal times, the drastically altered conditions of employment over the period of the recent war necessitated the adoption of more direct methods. Since 1939, the estimates of numbers of male and female wage and salary earners (including unemployed) have been based on data obtained largely from the National Register of July, 1939, the Civilian Register of June, 1943, the Occupation Survey of June, 1945, records of Defence Forces and the 1947 Census. The estimated numbers of wage and salary earners for the years shown in the table below *include* (*a*) persons who were "not gainfully occupied" before the outbreak of war, but who subsequently entered wage-earning employment and (*b*) persons who in normal times would be occupied in their own business but undertook wage and salary earning employment during the war and immediate post-war period.

The following table shows the number of males, females and persons who are members of trade unions and the ratio of members to the estimated number of all wage and salary earners. The estimated number of wage and salary earners includes all persons in receipt of wages or salary, as well as those unemployed, and therefore embraces a number of persons who are not eligible for membership of any trade union, such as certain persons employed in professional occupations, as well as others who, while eligible for membership so far as the nature of their trade or occupation is concerned, do not reside in a locality which is covered by any union devoted to their particular trade or occupation.

TRADE UNIONS: NUMBER OF MALE AND FEMALE MEMBERS AND RATIO TO TOTAL WAGE AND SALARY EARNERS(*a*), AUSTRALIA.

Particulars.	1939.	1946.(*b*)	1947.(*b*)	1948.(*b*)	1949.	1950.
MALES.						
Estimated No. of Wage and Salary Earners	1,783,100	1,840,000	1,864,235	1,933,201	1,995,227	2,048,591
No. of Members of Unions	778,336	1,028,560	1,087,428	1,172,676	1,226,818	1,301,868
Ratio of Members to Estimated Number of Wage and Salary Earners %	43.7	55.9	58.3	60.7	61.5	63.5
FEMALES.						
Estimated No. of Wage and Salary Earners	604,800	687,900	694,772	734,348	752,664	783,319
No. of Members of Unions	137,134	255,802	278,065	283,132	294,096	303,476
Ratio of Members to Estimated Number of Wage and Salary Earners %	22.7	37.2	40.0	38.6	39.1	38.7
PERSONS.						
Estimated No. of Wage and Salary Earners	2,387,900	2,527,900	2,559,007	2,667,549	2,747,891	2,831,910
No. of Members of Unions	915,470	1,284,362	1,365,493	1,455,808	1,520,914	1,605,344
Ratio of Members to Estimated Number of Wage and Salary Earners %	38.3	50.8	53.4	54.6	55.3	56.7

(*a*) Includes allowance for unemployed. (*b*) Figures revised.

(v) *Interstate or Federated Trade Unions.* The following table gives particulars of the number and membership of interstate or federated unions in 1950:—

INTERSTATE OR FEDERATED TRADE UNIONS: AUSTRALIA(*a*), 1950.

Particulars.	Unions Operating in—					Total.
	2 States.	3 States.	4 States.	5 States.	6 States.	
Number of Unions ..	13	13	17	38	59	140
" " Members ..	41,369	41,000	121,180	395,012	832,918	1,431,479

(*a*) Certain unions in this group have, in addition to branches in the States, branches in the Northern Territory and the Australian Capital Territory.

The number of organizations operating in two or more States increased from 72 in 1912 to 140 in 1950, and the ratio of the membership of such organizations to the total membership of all organizations rose from 65 to 89 per cent. during the same period.

3. **Central Labour Organizations.**—In each of the capital cities and in a number of industrial centres elsewhere, delegate organizations, consisting of representatives from a group of trade unions, have been established. Their revenue is raised by means of a

per capita tax on the members of each affiliated union. In most of the towns where such central organizations exist, the majority of the local unions are affiliated with the central organization, which is usually known as the Labour or the Trades Hall Council, or the Labour Federation. In Western Australia a unified system of organization extends over the industrial centres throughout the State. In this State there is a provincial branch of the Australian Labour Party, having a central council and executive, and metropolitan and branch district councils, to which the local bodies are affiliated. The central council, on which all district councils are represented, meets periodically. In the other five States, however, the organization is not so close, and, while provision usually exists in the rules of the central council at the capital city of each State for the organization of district councils or for the representation of the central council on the local councils in the smaller industrial centres of the State, the councils in each State are, as a matter of fact, independent bodies.

A Central Labour Organization, called the Australasian Council of Trade Unions, came into being during 1927. The Council was created to function on behalf of the Trade Unions of Australia, and was founded at an All-Australian Trade Union Congress held in Melbourne in May, 1927. The Australasian Council is based on the Metropolitan Trades and Labour Councils in each State, such bodies having the right to appoint two representatives to act on the Executive of the Council. The Metropolitan Trades and Labour Councils are the branches of the Australasian Council. In addition to the representatives from the Metropolitan Councils, the Executive consists of four officers—the President, two Vice-Presidents, and a Secretary, who are elected by and from the All-Australian Trade Union Congress.

The objective of the Council is the socialization of industry, i.e., production, distribution and exchange. The methods to be adopted are :—(*a*) The closer organization of the workers by the transformation of the Australasian Trade Union Movement from the craft to an industrial basis by the establishment of one Union in each industry; (*b*) the consolidation of the Australasian Labour Movement with the object of unified control, administration and action; (*c*) the centralized control of industrial disputes; and (*d*) educational propaganda among unions. The Australasian Council of Trade Unions is the first interstate body in Australia with authority to deal with industrial matters of an interstate character affecting the Trade Union movement generally. It is also the body responsible for submitting to the Commonwealth Government the names of persons suitable for selection as the Australian workers' delegate to the Annual International Labour Conference.

The table below shows the number of metropolitan and district or local labour councils, together with the number of unions and branches of unions affiliated therewith, in each State at the end of the year 1950 :—

CENTRAL LABOUR ORGANIZATIONS : NUMBER AND UNIONS AFFILIATED, 1950.

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	A.C.T.	Total.
Number of Councils	10	9	13	6	10	5	1	54
Number of Unions and Branch Unions affiliated ..	248	272	152	134	434	97	21	1,358

The figures given in the preceding table concerning the number of unions do not necessarily represent separate unions, since the branches of a large union may be affiliated with the local trades councils in the several towns in which they are represented.

Between the trade union and the central organization of unions may be classed certain State or district councils organized on trade lines, and composed of delegates from separate unions whose members' interests are closely connected because of their occupations. Delegate councils of bakers, bread carters and mill employees, or of unions connected directly or indirectly with the iron, steel, or brass trades, or with the building trades, may be so classed.

G. COMPARATIVE INDEX-NUMBERS.

In order to show the relative movements of certain price and related data, the following table of annual and quarterly index-numbers for the six capital cities combined has been compiled with a common base 1911 = 1,000.

COMPARATIVE INDEX-NUMBERS FOR THE SIX CAPITAL CITIES COMBINED.

(*Base of each Group: Weighted Average of Six Capitals* 1911 = 1,000 (*a*).)

Period.	Retail Price Index-numbers.						Nominal Wages, Adult Males.	Real Wages. (*c*)	Proportion of Trade Unionists Unemployed.
	Food and Groceries.	Housing (4 and 5 Rooms). (*b*)	Food, Housing (4 and 5 Rooms) ("B" Series.)	Clothing.	Miscellaneous.	All Items of Household Expenditure ("C" Series.)			%
Year—									
1911 ..	1,000	1,000	1,000	(*d*)1,000	(*d*)1,000	(*d*)1,000	1,000	1,000	4.7
1914 ..	1,144	1,082	1,121	1,140	1,140	1,140	1,081	948	8.3
1921 ..	1,902	1,410	1,717	1,883	1,537	1,680	1,826	1,087	11.2
1928 ..	1,761	1,743	1,755	1,507	1,537	1,675	1,963	1,172	10.8
1932 ..	1,425	1,336	1,390	1,215	1,458	1,377	1,639	1,190	29.0
1938 ..	1,584	1,540	1,568	1,253	1,463	1,488	1,799	1,209	8.7
1939 ..	1,657	1,577	1,626	1,271	1,465	1,526	1,846	1,210	9.7
1945 ..	1,849	1,595	1,746	2,155	1,767	1,868	2,339	1,252	1.2
1946 ..	1,852	1,596	1,748	2,276	1,776	1,900	2,400	1,263	1.4
1947 ..	1,967	1,597	1,816	2,367	1,825	1,971	2,598	1,318	1.2
1948 ..	2,245	1,601	1,982	2,637	1,913	2,148	2,914	1,357	0.9
1949 ..	2,492	1,605	2,128	3,019	2,037	2,349	3,210	1,367	(*e*) 2.0
1950 ..	2,800	1,613	2,313	3,455	2,184	2,589	3,596	1,389	0.8
Quarter—									
1939.									
March ..	1,673	1,568	1,631	1,258	1,461	1,524	1,826	1,198	9.6
June ..	1,654	1,575	1,623	1,264	1,461	1,522	1,847	1,214	9.5
September	1,645	1,582	1,620	1,264	1,463	1,520	1,854	1,220	10.2
December	1,657	1,584	1,628	1,297	1,472	1,536	1,858	1,210	9.3
1944.									
March ..	1,824	1,595	1,731	2,167	1,775	1,864	2,322	1,246	1.0
June ..	1,834	1,595	1,737	2,160	1,773	1,865	2,322	1,245	1.4
September	1,852	1,595	1,748	2,166	1,772	1,873	2,327	1,242	1.2
December	1,827	1,595	1,733	2,180	1,770	1,867	2,332	1,249	1.2
1945.									
March ..	1,838	1,595	1,739	2,149	1,767	1,863	2,333	1,252	1.1
June ..	1,854	1,595	1,749	2,141	1,767	1,866	2,336	1,252	1.1
September	1,860	1,595	1,752	2,140	1,767	1,868	2,340	1,253	1.2
December	1,842	1,595	1,742	2,189	1,767	1,874	2,348	1,253	1.2
1946.									
March ..	1,853	1,595	1,748	2,201	1,772	1,881	2,354	1,251	1.4
June ..	1,863	1,595	1,754	2,259	1,776	1,900	2,360	1,242	1.3
September	1,839	1,596	1,741	2,299	1,776	1,902	2,378	1,250	1.4
December	1,854	1,596	1,750	2,343	1,781	1,918	2,507	1,307	1.4
1947.									
March ..	1,915	1,596	1,785	2,305	1,798	1,933	2,527	1,307	1.4
June ..	1,945	1,597	1,803	2,319	1,802	1,948	2,545	1,306	1.2
September	1,974	1,597	1,820	2,367	1,846	1,978	2,630	1,330	1.1
December	2,035	1,598	1,857	2,478	1,853	2,026	2,690	1,328	0.9
1948.									
March ..	2,128	1,599	1,912	2,511	1,874	2,071	2,781	1,343	0.9
June ..	2,197	1,600	1,953	2,600	1,900	2,121	2,854	1,346	0.9
September	2,278	1,601	2,001	2,688	1,935	2,175	2,970	1,366	0.9
December	2,378	1,602	2,060	2,748	1,944	2,225	3,050	1,371	0.8
1949.									
March ..	2,433	1,603	2,093	2,795	1,985	2,263	3,099	1,369	0.8
June ..	2,482	1,604	2,122	2,968	2,017	2,328	3,182	1,367	0.8
September	2,497	1,606	2,131	3,089	2,047	2,370	3,249	1,371	(*e*) 5.5
December	2,555	1,608	2,167	3,223	2,098	2,433	3,310	1,360	0.8
1950.									
March ..	2,633	1,609	2,213	3,259	2,134	2,474	3,372	1,363	0.8
June ..	2,718	1,611	2,264	3,418	2,151	2,546	3,458	1,358	0.8
September	2,828	1,614	2,330	3,501	2,180	2,609	3,545	1,359	0.8
December	3,020	1,618	2,444	3,643	2,271	2,726	4,000	1,471	0.7

(*a*) The index-numbers given in the separate columns of the table cannot be compared with each other in order to show, for example, the relative cost of housing and food and groceries, since the cost in 1911 *in each group or combination of groups* is made equal to 1,000. (*b*) *See* footnote (*b*) on page 383. (*c*) Index of nominal weekly wage rates for adult males divided by "C" Series Retail Prices Index-number. (*d*) Taken back from true base (November, 1914 = 1,000) by means of the "A" Series Index (Food and Rent of all Houses). (*e*) Includes all members of reporting unions indirectly affected by the industrial dispute in the coal-mining industry; those directly affected are, however, excluded.

CHAPTER XII.

TRADE.

§ 1. Introductory.

Constitutional Powers of the Commonwealth in regard to Commerce.—The powers vested in the Commonwealth Parliament by the Commonwealth Constitution with respect to oversea trade and commerce will be found in Sub-section 51 (i) and Sections 86 to 95 thereof (see pp. 15 and 21–22 *ante*).

§ 2. Commonwealth Legislation affecting Oversea Trade.

1. **General.**—In previous issues of the Official Year Book brief particulars of the various Commonwealth Acts and amendments thereof affecting oversea trade are given in chronological order. The Customs Acts represent the administrative or machinery Acts under which the Department of Trade and Customs operates, while the Customs Tariff provides the statutory authority for imposing the actual rates of duties operative from time to time.

The Acts at present in force are: The Customs Act 1901–1950; Customs Tariff 1933–1950; Customs Tariff (Canadian Preference) 1934–1950; Customs Tariff (Industries Preservation) Act 1921–1936; Customs Tariff (New Zealand Preference) 1933–1950; Customs Tariff (Papua and New Guinea Preference) 1950: Customs Tariff (Southern Rhodesian Preference) 1941–1948; Customs Tariff (Primage Duties) 1950; Trading with Enemy Act 1939–1947.

2. **Customs Tariffs.**—The Customs Tariff 1921–1930 provided a British Preferential Tariff, an Intermediate Tariff and a General Tariff. The Intermediate Tariff was omitted from the Customs Tariff 1933 but was restored by the Customs Tariff 1936.

" British Preferential Tariff " rates of duty apply to goods the produce or manufacture of the United Kingdom provided such goods comply with the laws and statutory regulations for the time being in force affecting the grant of British preference, and that the goods have been shipped in the United Kingdom to Australia and have not been transhipped, or, if transhipped, it is proved to the satisfaction of the Collector of Customs that the intended destination of the goods, when originally shipped from the United Kingdom, was Australia. The benefits of the British Preferential Tariff may be extended wholly or in part to any British non-self-governing colony, British protectorate or to certain territories governed under British mandate. The benefits of the British Preferential Tariff have been extended by separate Trade Agreements to certain goods the produce of the Dominions of Canada and New Zealand and to certain goods the produce of British non-self-governing colonies.

In submitting tariff schedules to Parliament on 20th March, 1936, the Minister for Trade and Customs said; " Another new feature of the schedules is the Intermediate Tariff. It has been re-introduced to provide a convenient avenue for expressing the level of duties which the Government proposes should form the basis for trade treaties. The rates proposed under the protective items of the Intermediate Tariff express, in every case, a protective level for Australian industry as well as preserving the margins required under the Ottawa Agreement." The Customs Tariff 1933–1950 provides that the Governor-General may from time to time by proclamation declare that the Intermediate Tariff shall apply from a date and time specified to goods specified in the proclamation which are the produce or manufacture of the British or foreign country specified in the proclamation. The Intermediate Tariff was brought into operation on 1st January, 1937, by Customs Proclamations Nos. 338, 342, 343 and 360, which granted intermediate rates of duty to specified goods the produce of " Proclaimed Countries." The countries proclaimed include the United Kingdom, the Dominions and Colonies in respect of goods which do not comply with the conditions prescribed for the application of a lower tariff and most foreign countries under the terms entitling them to most-favoured-nation treatment. The United States of America was an important exception until 17th February, 1943, when Customs Proclamation No. 571 included it in the list of "Proclaimed Countries".

The "General Tariff" applies to all importations excepting :—

(a) Goods the produce or manufacture of the United Kingdom, shipped in the United Kingdom ;

(b) Goods the produce or manufacture of the following countries when admissible under the British Preferential Tariff or at a special rate of duty : Canada, New Zealand, Norfolk Island, Papua and New Guinea, Southern Rhodesia, and British non self-governing Colonies, British Protectorates and certain Territories governed under British mandate.

(c) Goods admitted under the provisions of the Intermediate Tariff.

The Customs Tariff 1933–1950 provides for duties on certain goods to be deferred. Where a deferred duty on any goods is provided in the Schedule, the Minister shall refer to the Tariff Board for inquiry and report on the question whether the deferred duty should or should not operate on and after the date to which it has been deferred. The Board shall report whether the goods in respect of which the deferred duty is provided are being made or produced in Australia or will be so made or produced on, or immediately after, the date to which the duty has been deferred—(a) in reasonable quantities ; (b) of satisfactory quality ; and (c) at a reasonable price having regard, among other things, to the probable economic effect of the imposition of the deferred duty upon other industries concerned, and upon the community in general. Upon receipt of a report from the Tariff Board, the Minister may defer the duty further by notice published in the *Commonwealth Gazette*.

3. **Preferential Tariff.**—(i) *British Preference.* The Commonwealth Tariff 1908 provided Preferential Tariff rates in favour of specified goods produced or manufactured in the United Kingdom. Subsequent legislation has extended the list of articles to which these rates apply. For the purpose of preferential treatment the following goods are deemed by Section 151A of the Customs Act 1901–1950 to be the produce or manufacture of the United Kingdom provided the final process of their production or manufacture was performed in that country :—

(a) Goods which are wholly produced or wholly manufactured in the United Kingdom from materials in one or more of the following classes—
  (i) Materials wholly produced or wholly manufactured in the United Kingdom or in Australia ;
  (ii) Imported unmanufactured raw materials ;
  (iii) Imported manufactured raw materials as determined by the Minister.

(b) Goods of the factory or works cost of which not less than seventy-five per cent. is represented—
  (i) by labour or material of the United Kingdom ; or
  (ii) by labour or material of the United Kingdom and labour or material of Australia.

(c) Goods of a class or kind not commercially produced or manufactured in Australia and of the factory or works cost of which not less than twenty-five per cent. or fifty per cent. if the Minister so determines is represented—
  (i) by labour or material of the United Kingdom ; or
  (ii) by labour or material of the United Kingdom and labour or material of Australia.

The benefits of the British Preferential Tariff have also been extended by separate Trade Agreements to certain goods the produce of the Dominions of Canada and New Zealand and by separate Tariff legislation to the Territories of Papua and New Guinea and the above-mentioned conditions apply *mutatis mutandis* to each.

At the Imperial Economic Conference held at Ottawa, Canada, during July and August, 1932, a trade agreement providing for special preferential trade conditions was made between the Governments of the United Kingdom and the Commonwealth of

Australia. A summary of the provisions of this agreement appears in Official Year Book No. 20, pp. 868–873 and further references have been made in subsequent issues.

The five years' currency of the agreement terminated on 19th August, 1937, but, in view of the negotiations then in progress between the Governments of the United Kingdom and the United States of America for a trade agreement, a review of the terms of the Ottawa Agreement became a matter of urgency. The United Kingdom Government at the time sought the concurrence of the Dominions in the modification of certain preferences granted under the Ottawa Agreement in order to facilitate the satisfactory conclusion of an agreement with the United States of America. As a consequence, a conference of United Kingdom and Australian Ministers was held in London early in 1938 and a joint statement setting out the result of the conference was issued by the two Governments in the form of a Memorandum of Conclusions which was published by the United Kingdom Government on 20th July, 1938. Details of the Memorandum have been published in previous issues of the Official Year Book. The full text may be found on pages 479–482 of Official Year Book No. 32.

The future of the agreement and of Empire preferences generally has been discussed in connexion with the proposals for the establishment of an International Trade Organization which are referred to in paragraph 6.

(ii) *Intermediate Tariff.* The Intermediate Tariff came into operation on 1st January, 1937, in respect of a selected list of items. This list has been substantially extended from time to time but many rates have not yet been proclaimed to come into operation. Those items which have been proclaimed apply to goods from countries with which specific most-favoured-nation arrangements exist, including goods from all members of the British Commonwealth of Nations not receiving preferential Tariff treatment. They apply also to goods from certain other Foreign countries in respect of which Australia has no formal obligation to accord Intermediate Tariff treatment.

(iii) *Exchange Adjustment.* The Customs Tariff (Exchange Adjustment) Act 1933–1939 provides for adjustments in Duties of Customs consequent upon depreciation in the value of Australian currency relative to sterling. This Act came into operation on 5th October, 1933 and ceased to operate on 15th November, 1947, as a result of the Customs Tariff (Exchange Adjustment) Act Repeal Act 1948.

A summary of the provisions of the Customs Tariff (Exchange Adjustment) Act 1933–1939 is contained in previous issues of the Official Year Book.

(iv) *Papua and New Guinea Preference.* The Customs Tariff (Papua and New Guinea Preference) Act 1936–1950 which repealed the Act of 1934 provides for Customs Preference on goods the produce of the Territory of Papua and on goods the produce of the Territory of New Guinea. Imports into Australia direct from the Territory of Papua or the Territory of New Guinea, of such of the goods specified in the schedule to the Act as were produced in the Territory from which they were imported, shall, notwithstanding anything contained in the Customs Tariff 1933–1950, be free of duty. The goods specified in the schedule to the Customs Tariff (Papua and New Guinea Preference) 1936–1950 are coffee, dried lychee fruit, various native fresh fruits, edible fungi, green and dry ginger, coco-nuts, Rangoon beans, kapok and sesame seeds, areca nuts, cocoa beans, massoi oil, nuts (edible), sago, tapioca, spices, vanilla beans, gums, pyrites, denatured spirit and tea.

4. **Primage Duty.**—From 10th July, 1930 a primage duty of 2½ per cent. ad valorem was imposed on all goods whether dutiable or not dutiable, in addition to the duties collected in accordance with the Customs Tariff 1921–1930, excepting bullion, specie, radium and certain special governmental and other imports. The rate of primage duty was subsequently increased to 4 per cent. as from 6th November, 1930.

A proclamation of 14th May, 1931 exempted certain aids to primary production, and on 11th July, 1931 a further amendment, in addition to extending the list of these goods and also exempting some minor imports from primage duty, provided for a rate of 4 per cent. ad valorem on a few other items, mainly aids to production, and increased the ad valorem rate of primage duty to 10 per cent. on all other articles imported. Amendments promulgated since 11th July, 1931 have greatly increased the list of goods exempt from primage duty.

The Customs Tariff (Primage Duties) Act 1934 imposed primage duty at rates of 4, 5, and 10 per cent. and provided for preferential treatment of certain goods admitted under the British Preferential Tariff. A proclamation of 12th December, 1934 exempted from primage duty goods the produce or manufacture of Fiji, and a proclamation of 25th September, 1935 exempted from primage duty goods the produce or manufacture of the Territories of New Guinea and Papua. Under the Customs Tariff (New Zealand Preference) Act goods the produce or manufacture of New Zealand are exempt from primage duty. Similarly under the Norfolk Island Act 1913 goods the produce or manufacture of Norfolk Island are exempt from primage duty.

Customs proclamations, which came into force on 1st January, 1937 and later dates, provide in respect of specified tariff items exemptions from, and reduced rates of 4 and 5 per cent., primage duty on imports the produce or manufacture of "Proclaimed Countries". All countries whose goods are admissible to Australia under the intermediate customs tariff rank as proclaimed countries and include the United Kingdom, the Dominions and Colonies, the United States of America (from 18th February, 1943), and most foreign countries.

Further proclamations have provided for exemption of additional tariff items from primage duty. Of proclamations of recent date, those operative from 19th November, 1947, were the principal.

5. **Trade Agreements.** (*See also* para. 6 following)—(i) *United Kingdom.* A reciprocal trade agreement between the United Kingdom and Australia came into force on 14th October, 1932, and is referred to briefly in paragraph 3 above. Broadly speaking, Australia secured preferences in the United Kingdom market for a wide range of Australian export commodities and in return Australia incurred obligations to the United Kingdom in respect of Tariff rates and the grant of preferences to United Kingdom goods.

(ii) *Dominion of Canada.* A reciprocal trade agreement between Canada and Australia which came into force on 1st October, 1925, was superseded by a new agreement operating from 3rd August, 1931. The basis of the new agreement was, generally, the mutual accord of British Preferential Tariff treatment. The only exceptions to this general rule were listed in the schedules to the agreement.

Australian commodities to which the British Preferential Tariff does not apply on their importation into Canada include: Butter, brandy, champagne, cheese, currants, eggs, eucalyptus oil, fresh apricots, pears, quinces, nectarines, grapes, oranges and passion fruit, dried prunes, apricots, nectarines, pears and peaches, fruit pulp, fruits in cans, gelatine, hops, rice (uncleaned), meat (fresh and canned), peanuts, raisins, sugar, tallow, veneers and wine.

Canadian commodities to which the British Preferential Tariff does not apply on their importation into Australia include: Goloshes and rubber sand boots, barbed wire, timber, typewriters, vehicles—motor chassis (assembled and unassembled)—vehicle parts (bodies, gears, rubber tyres and tubes, storage batteries, sparking plugs and shock absorbers), agricultural machinery and pianos.

Certain administrative provisions, including a special concession to Canada in respect of the inland freight charges to be included in the dutiable value of Canadian goods on importation into Australia, were incorporated in the agreement.

The Customs Tariff (Canadian Preference) Act 1934–1950 gives effect to the agreement so far as Australia is concerned.

(iii) *Dominion of New Zealand.* A reciprocal trade agreement between New Zealand and Australia came into force on 1st December, 1933, superseding an earlier agreement of 1922. The basis of the new agreement was, generally, the mutual accord of British Preferential Tariff treatment. The only exceptions to this general rule were listed in the schedules to the agreement.

The Customs Tariff (New Zealand Preference) Act 1933 giving effect to the agreement repealed earlier acts and provides that duties on all goods specified in the schedule to the Act shall be at the rates indicated therein, and that all goods other than those provided for in the schedule shall be subject to the rates in force under the British Preferential Tariff. An amendment to this Act in 1934 provides that, where the rate of duty upon any class of goods under the New Zealand British Preferential Tariff is less than that operating in Australia under the British Preferential rate, upon request by the New Zealand Government such goods may, after proclamation, be admitted at the lower rate. The rates of duty on goods re-exported from New Zealand (not being goods the produce or manufacture of New Zealand) and which are imported into Australia, and which if they had been imported into Australia direct from the country of origin would have been subject to the rates of duty under the British Preferential Tariff, shall be the rates of duty in force under that tariff.

The Act provides also that films produced in New Zealand by or for the Government of New Zealand for publicity purposes shall be admitted free of duty, also that cocoa beans the produce of Western Samoa shall not be subject to any higher duties than those paid on cocoa beans the produce of any British non-self-governing Colony or Protectorate or any Territory under British mandate. The provisions of the Act do not, however, apply to goods the produce of Cook Islands.

Goods the produce or manufacture of the Dominion of New Zealand are exempt from primage duty.

The conditions of preference in the Act provide that goods shall be deemed to be the produce or manufacture of New Zealand if they conform to the laws and regulations in force in Australia which apply to such goods when imported under the British Preferential Tariff (*vide* section 151A of Customs Act 1901–1947) except that goods not wholly produced or manufactured in New Zealand need not contain more than 50 per cent. of New Zealand labour and/or material in their factory or works cost, instead of 75 per cent. under the conditions of the United Kingdom preference.

(iv) *Southern Rhodesia.* An agreement between Southern Rhodesia and Australia came into operation on 9th April, 1941.

Under the agreement the principal undertakings by the Commonwealth Government were—(*a*) to accord a preferential rate of ninepence per lb. lower than the British Preferential Tariff on unmanufactured tobacco from Southern Rhodesia; and (*b*) to admit raw asbestos and chrome at rates of duty not higher than those applicable to these products from other countries, and to admit them free of primage duty.

The Southern Rhodesian Government on its part agreed—(*a*) to admit free of duty a schedule of Australian goods comprising 33 items; (*b*) to accord specified preferential rebates ranging from 10 per cent. to 50 per cent. from the duties applicable to United Kingdom goods on a schedule of Australian goods comprising 19 items; (*c*) to accord British Preferential Tariff rates to a schedule of Australian goods comprising 14 items and (*d*) to accord similar tariff treatment to Australian wheat and wheat flour, in the event of permits being issued for importation from any other country at rates of duty lower than those accorded to Australia under the agreement.

The Trade Agreement (Southern Rhodesia) Act 1941 approved the agreement, which was given effect to so far as Australia is concerned by the Customs Tariff (Southern Rhodesian Preference) Act 1941.

(v) *Union of South Africa.* A trade agreement between Australia and the Union of South Africa came into force as from 1st July, 1935.

This agreement provides that the products of the Union of South Africa or of the mandated territory of South-West Africa entering Australia and the products of Australia entering the Union of South Africa or the mandated territory of South-West Africa shall be subject to customs duties not higher than those imposed by the importing country on like products from the most favoured foreign nation. A reciprocal tariff arrangement under which products of Mozambique are admitted duty free to the Union of South Africa is exempt from the agreement.

The Trade Agreement (South Africa) Act 1936 approves the terms of this agreement.

(vi) *Foreign Countries.* Trade agreements between the Commonwealth Government and the Governments of Belgium, Czechoslovakia and France were in operation prior to the outbreak of war in September, 1939, but were inoperative during the war, owing to the provisions of the Trading with the Enemy Act 1939–1940. These agreements are again in full force.

The trade agreement concluded in 1938 between Australia and Switzerland continued in limited operation during the war period.

Between December, 1939 and April, 1944 the Commonwealth Government also entered into trade agreements with Brazil and Greece.

Summaries of the texts of these agreements appear in previous issues of the Official Year Book.

6. The Charter for an International Trade Organization and the General Agreement on Tariffs and Trade.—(i) *The Charter for an International Trade Organization.* Details of the passage of events leading up to the drafting of the Havana Charter for an International Trade Organization and of the scope of the Charter itself, may be found in Commonwealth Year Book No. 38, p. 466.

In accordance with the decisions reached at the conclusion of the United Nations Conference on Trade and Employment in March, 1948, the Havana Charter was submitted to Governments of the countries represented at the Conference. Because of the predominant influence of the United States of America in world trade most other countries waited for a decision from that country before determining their own attitudes to the Charter.

On 6th December, 1950, the United States Government announced that it did not propose to resubmit the Havana Charter to Congress for approval, but would ask Congress to consider legislation to make American participation in the General Agreement on Tariffs and Trade more effective. It now seems unlikely that the Charter will ever come into force in its present form.

(ii) *The General Agreement on Tariffs and Trade.* On 10th April, 1947 (about a month prior to the resumption of the Charter discussions) the member nations of the Preparatory Committee engaged in negotiations with the object of arriving at a satisfactory basis on which the reduction of tariff barriers could be effected.

The Tariff negotiations were kept quite distinct from the Charter discussions as the aim was to bring the results into effect without necessarily awaiting the establishment of the International Trade Organization.

The results of the negotiations were incorporated in a draft General Agreement on Tariffs and Trade which was tabled in the House of Representatives on 18th November, 1947, together with the tariff schedules implementing the tariff reductions which Australia had undertaken to afford.

A Protocol of Provisional Application provided that, upon signature by Australia, Belgium, Canada, France, Luxembourg, the Netherlands, the United Kingdom and the United States of America not later than 15th November, 1947, those countries should undertake to apply provisionally on and after 1st January, 1948—

(1) Parts I. and III. of the Agreement,

(2) Part II. of the Agreement to the fullest extent not inconsistent with existing legislation in their respective countries.

These conditions were satisfied and the Agreement is provisionally in force. Tariff reductions undertaken by Australia operated from 19th November, 1947. The General Agreement is now being provisionally operated by Australia, Belgium, Brazil, Burma, Canada, Ceylon, Chile, Cuba, Czechoslovakia, Denmark, Dominican Republic, Finland, France, Greece, Haiti, India, Indonesia, Italy, Liberia, Luxemburg, Netherlands, New Zealand, Nicaragua, Norway, Pakistan, Southern Rhodesia, Sweden, Union of South Africa, United Kingdom and the United States of America. China, Lebanon and Syria have withdrawn from the General Agreement.

The agreement does not come definitively into force until 30 days after instruments of acceptance have been lodged by countries accounting for 85 per cent. of the total external trade of the countries signatory to the Final Act. The percentage is to be calculated in accordance with a table set out in Annexe H to the Agreement. No country has yet definitively accepted the agreement, but as in the case of the Charter, Parliament has approved Australia lodging an instrument of acceptance when the United Kingdom and United States of America have done likewise.

Many of the articles of the General Agreement are identical with articles in the Charter and were only incorporated in the Agreement to prevent tariff concessions being circumvented by other measures pending the coming into force of the Charter. Had the Charter come into force, Part II. of the General Agreement which contains such articles would have been suspended.

The three component parts of the Agreement contain briefly—

Part I. Schedules of negotiated tariff reductions and an undertaking to extend most-favoured-nation treatment to other participating countries except where existing preferences are deemed valid.

Part II. Undertakings regarding commercial policy to prevent tariff concessions being offset by other protective measures.

Rights are preserved, however, to—

(1) Impose new duties for protective purposes except in respect of commodities where rates of duty have been bound under the general agreement;

(2) impose import restrictions to protect the balance of payments;

(3) take emergency action where any industry is endangered by any negotiated tariff or preference reduction.

Part III. Mainly machinery provisions.

Under the tariff negotiations associated with the Agreement concessions were offered to Australia on almost all the principal products of which Australia is an actual or potential exporter to the individual countries concerned. Generally the offers were made directly to Australia, but in some cases benefits will arise indirectly from concessions granted to third countries which are more important suppliers of the particular product. These latter benefits occur through the operation of the most-favoured-nation principle.

In April, 1949 a second series of tariff negotiations commenced at Annecy in France between the 23 Contracting Parties which were then operating the General Agreement on Tariffs and Trade and eleven additional countries which had expressed a desire to accede to the General Agreement. Nine of these countries—Denmark, Dominican Republic, Finland, Greece, Haiti, Italy, Liberia, Nicaragua and Sweden subsequently acceded to the Agreement.

In addition, Ceylon, which, for domestic reasons, had been unable to operate concessions it negotiated at Geneva in 1947, took the opportunity of re-negotiating with certain countries including Australia.

The tariff concessions made by Australia at Annecy were put into effect from 12th May, 1950.

A third series of tariff negotiations was conducted at Torquay, England, from September, 1950 to April, 1951 and was attended by representatives of all contracting parties except Burma, Liberia, Nicaragua and Syria, and by representatives of seven new countries—Austria, Korea, Peru, Philippines Republic, Turkey, Western Germany and Uruguay. Australia completed agreements with Austria, Denmark, Philippines, Turkey, Western Germany and Sweden. These tariff concessions were put into force on 27th September, 1951.

Questions of interpretation concerning the provisions of the Agreement and of other matters arise from time to time and the Contracting Parties have held six sessions to deal with such matters: the first at Havana in March, 1948; the second at Geneva in August, 1948; the third at Annecy during 1949; the fourth at Geneva in February–April, 1950; the fifth at Torquay in November–December, 1950; and the sixth at Geneva in September–October, 1951.

7. **Customs (Import Licensing) Regulations.**—The Customs (Import Licensing) Regulations were promulgated and became effective on 1st December, 1939. These regulations were complementary to the National Security (Monetary Control) Regulations and the Customs (Overseas Exchange) Regulations, which were already in operation, in that the chief immediate aim of the licensing measure was to conserve resources of non-sterling exchange and, in particular, to prevent the absorption of those resources in the

purchase of unessential imports to the detriment of more vital national needs. Other objectives were to enable priority in shipping space to be given to essential imports should a shortage develop and to gather information on the relative importance of particular imports to enable future restrictions (if required) to be soundly based.

However, during 1941 the deterioration of Australian sterling balances in London and changes in the general war situation made it necessary in December, 1941 to bring imports from sterling countries within the scope of the regulation. The extension of the restrictions to sterling goods was a necessary corollary to the measures adopted in Australia and throughout the British Commonwealth to divert manpower, machinery and raw materials to war production. Conservation of shipping space was also an important consideration.

With the cessation of hostilities and the improvement in London balances and in accordance with the Government policy of relaxing all forms of war-time restrictions wherever possible, a large range of goods of sterling origin was removed from control in January, 1946. In January, 1947, with the exception of a small number of goods, import licensing control was removed from all goods of United Kingdom origin. In the post-war period import licensing restrictions have been relaxed whenever balance of payments conditions have allowed. At the present time (July, 1951) nearly all goods of United Kingdom origin are exempt from the provisions of the Customs (Import Licensing) Regulations and a wide range of goods originating in the other countries of the sterling area and in the easy currency countries is also exempt.

The sterling area still has balance of payments problems with a small number of non-sterling countries (the hard currency countries). Australian policy in respect of importations from these countries (the chief of which are those which comprise the dollar area) is to restrict importations to those goods which are of an essential nature and are unobtainable from sterling or easy currency sources.*

8. **Export Control.**—(i) *General.* Powers for the normal measures of control or supervision over exports are conferred by section 112 (1) of the Customs Act and they provide for the prohibition of the exportation of arms, explosives and military and naval stores, and of any goods—

(*a*) the exportation of which would be harmful to the Commonwealth ;
(*b*) the prohibition of the exportation of which is necessary for the preservation of the flora or fauna of Australia ;
(*c*) in order to preserve the standard and quality of Australian goods for export ;
(*d*) the prohibition of the exportation of which is necessary for the protection of the revenue or the prevention of fraud or deception.

Action has been taken under these powers to prohibit the exportation of a large range of goods and these prohibitions apply at all times. They may be general, or restricted and absolute, or conditional.

In addition to these normal measures, restrictions were imposed on the exportation of goods during the war years and many have been continued in the post-war period. These restrictions provide for both monetary and commodity controls and are explained hereunder.

(ii) *Monetary Control.* As an integral part of the framework of exchange control, a control over goods exported from Australia was introduced in 1939 by the promulgation of the Customs (Overseas Exchange) Regulations which were subsequently superseded by Part IIA. of the National Security (Exchange Control) Regulations in December, 1943. The objectives were to ensure that—

(*a*) the oversea funds accruing from the exportation of goods were made available to the Australian banking system ; and
(*b*) payment for goods exported was made in the currency and the manner prescribed by the Commonwealth Bank of Australia.

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* Australian balances in London deteriorated in 1952 and import restrictions were reimposed on goods from both sterling and non sterling areas. The restrictions commenced to operate in March, 1952, and embrace a wide range of goods.

On the conclusion of the war it was decided to continue exchange control measures and provision was made in the Banking Act 1945 to enable the introduction of the necessary regulations. On 19th December, 1946 the Banking (Foreign Exchange) Regulations were promulgated and Part III. of these regulations now authorizes the control previously exercised under Part IIA. of the National Security (Exchange Control) Regulations.

Under Regulation 16 of the Banking (Foreign Exchange) Regulations the exportation of any goods is prohibited unless a licence to export has been granted under the regulations or the goods are excepted from the application of the regulations. Provision is made for the granting of export licences subject to such terms and conditions as may be imposed. On the receipt in Australia by the Commonwealth Bank, or by a Bank acting as its agent, of advice that foreign currency has been paid to the Commonwealth Bank or to an agent of the Bank in payment for goods exported in accordance with a licence granted under the regulations, the Bank or agent of the Bank pays the licensee, or such other person as may be entitled to receive it, an amount in Australian currency equivalent to the foreign currency received.

In addition to commercial transactions, exports by private individuals are rigidly controlled and in the case of persons leaving Australia for overseas a restriction applies to the value of specified articles of jewellery and other effects of high intrinsic value which they are permitted to take with them. Their baggage is subject to the regulations and, if containing goods of the nature mentioned, may require an export licence. Any goods contained in passengers' baggage which are restricted exports under the Customs Act require to be covered by an export permit.

(iii) *Commodity Control.* For various reasons, the principal of which were—

(*a*) to conserve supplies of essential commodities for Australia's requirements ;

(*b*) to implement price determinations ;

(*c*) to control exports of goods which are the subject of Empire Marketing Agreements ; and

(*d*) to strengthen the control of the exportation of capital in the form of goods, instituted by Part III. of the Banking (Foreign Exchange) Regulations,

a large range of commodities was prohibited from exportation (unless the consent of the Minister for Trade and Customs was first obtained) by proclamation promulgated under section 112 (1A.) of the Customs Act.

These prohibitions were imposed as a war-time measure but post-war conditions have necessitated continued export control of a number of goods. However, the matter is kept under continual review to ensure that restrictions are removed as soon as conditions permit.

9. **Industries Preservation.**—The Customs Tariff (Industries Preservation) Act 1921–1936 provides that, after inquiry and report by the Tariff Board, special duties shall be collected in the following cases when the importation of the goods referred to might be detrimental to an Australian industry :—In the case of goods sold for export to Australia at a price less than the fair market value for home consumption or at a price which is less than a reasonable price, a special dumping duty shall be collected equal to the difference between the price at which the goods were sold and the fair market value or the difference between the price at which the goods were sold and a reasonable price. Similar provision is made for goods consigned to Australia for sale. With regard to goods exported to Australia at rates of freight less than the normal rate of freight the dumping freight duty shall be—on goods carried free—the amount payable as freight at the normal rate ; and in the case of any other goods—an amount equal to the difference between the freight paid and the freight which would have been payable at the normal rate. Special duties are also imposed in the case of goods imported from countries whose currency is depreciated. Provision is also made for the protection of the trade of the United Kingdom in the Australian market from depreciated foreign currency.

The Act provides that the Minister for Trade and Customs, after inquiry and report by the Tariff Board, may publish a notice in the *Commonwealth Gazette* specifying the goods upon which the special rates of duty under this Act shall thereupon be charged and collected.

10. **Imperial Preference in the United Kingdom.**—(i) *Preferential Tariff of the United Kingdom.* Prior to 1919 the United Kingdom levied duties on a limited number of items for revenue purposes and did not extend preferential treatment to any of the Empire countries. The majority of imported goods entered the United Kingdom free of duty and, in fact, there was no scope for preferential treatment. In 1919, however, the range of revenue duties was extended and preferential rates of duty were established on some eighteen items. Of these, the preferential rate on twelve items was to be equivalent to five-sixths of the full rate, on four to two-thirds of the full rate and on another (wine) to 50–70 per cent. of the full rate. The items so affected of interest to Australia at that time were currants, dried and preserved fruit, sugar, molasses and wine.

The extension of preferential treatment was conditional on the goods being consigned from and grown, produced or manufactured in the British Empire. In the case of manufactured articles, preference applied only where a prescribed proportion of their value was the result of labour within the British Empire. The conditions have been embodied in all subsequent preference arrangements in substantially the same form.

During the period from 1919 to 1932 it became increasingly obvious that the United Kingdom, for economic reasons, was being forced to depart from the free trade principles which had conditioned trade during the years preceding the 1914–18 War. Every time a new duty was introduced provision was made for further preferential treatment to Empire products, although, in a great many cases, the preferences were of little or no significance to Australia because the new duties were on products which were neither grown nor manufactured in Australia. The Safeguarding of Industries Act 1921 provided for the imposition of duties on imports of key industry goods from foreign countries with free entry or preferential rates on similar goods from Empire countries. The purpose of these duties was to provide protection to vital United Kingdom industries in order to encourage their growth without fear of foreign competition. Similarly the Dyestuff Import Regulation of the previous year allowed the unrestricted import of dyestuffs of Empire origin whereas imports of foreign dyestuffs were subjected to licensing restrictions. In 1925 preferences were accorded or increased on sugar (for ten years), tobacco, dried fruit, wine and several other items. In succeeding years Key Industries Duties were imposed on a further range of industrial goods and in 1927, screening quotas for British films and in 1928 further sugar concessions, were introduced.

By 1931, therefore, the United Kingdom imposed duties on a fairly wide range of goods, provision being made in all cases for preferential treatment to Empire goods. The important preferences for Australia which emerged from these enactments were those on sugar, dried fruits, wine and jams and jellies. Even at this time, however, the United Kingdom adhered to the principles of free trade and by far the greater part of imports was free of duty.

In order to counteract the flood of dumping which followed the collapse of world trade in 1929–30 the United Kingdom introduced emergency tariff legislation in 1931. Ad valorem duties were imposed on almost all goods imported into the United Kingdom with the exception of certain raw materials, goods from Empire countries being exempt from these duties. These temporary measures were embodied in the Import Duties Act of March, 1932, by the enactment of which the United Kingdom finally abandoned free trade as a policy. This Act provided for free entry for Empire goods pending the conclusion of some permanent agreement. The Ottawa Agreement Act of November, 1932, emerged from the Imperial Economic Conference held in Ottawa and embodied agreements concluded between the various Dominions which participated. For the purpose of considering the present preferences enjoyed by Australia in the United Kingdom, it is expedient to regard the Import Duties Act and the Ottawa Agreements Act as complementary.

The Import Duties Act provided for the imposition of a general ad valorem duty of 10 per cent. on all imports with certain exceptions (i.e. those on the Free List and those already dutiable under previous enactments). Additional duties could be imposed and items on the Free List subjected to duty, and in fact, the range of items subject to duties under this Act has been extended from time to time since its enactment.

The freedom of Empire goods from these duties was guaranteed under the Ottawa Agreements Act, which also provided for the imposition of new duties on imports from foreign, but not Empire, countries of a number of products of special interest to the Empire countries concerned. Whilst free entry was guaranteed to Empire producers on a wide range of products, the margins of preference thereby applicable were not bound and the duties could be varied up or down by the United Kingdom Government without the consent of Empire countries. On a selected range of items, however, which are specified in the schedules to the Ottawa Agreements Act, the duties may not be varied by the United Kingdom without the consent of the other party to the respective agreement.

(ii) *The Australia-United Kingdom Trade Agreement.* This Agreement is a unit of the Ottawa Agreements and through it, preferences in the United Kingdom were established on a number of export items of considerable importance to Australia. The preferences accorded are summarized as follows :—

(*a*) Continued free entry was guaranteed for three years for Australian eggs, poultry, butter, cheese and other milk products. (This freedom of entry still continues). Similar foreign goods were subjected to duty thus giving Australia a preference of 1s. to 1s. 9d. per great hundred eggs ; 10 per cent. ad val. on poultry ; 15s. per cwt. on butter ; 15 per cent. ad val. on cheese ; 5s. per cwt. on sweetened whole condensed milk ; and 6s. per cwt. on unsweetened whole condensed milk and milk powder and other unsweetened preserved milk.

(*b*) Preferences were created on the following products by imposing a duty on like foreign articles whilst guaranteeing free entry to Australian produce : wheat (2s. per quarter) ; apples and pears (4s. 6d. per cwt.) ; canned apples (3s. 6d. per cwt.) ; other canned fruits (15 per cent. ad val.) ; certain dried fruits, raisins, etc. (10s. 6d. per cwt.) ; honey (7s. per cwt.) ; oranges (3s. 6d. per cwt. in season) ; raw grapefruit (5s. per cwt. in season) ; and grapes (1½d. per lb. in season).

(*c*) The preferential margins on the commodities mentioned in (*a*) and (*b*) above were not to be reduced without the consent of the Australian Government and this provision also applied to the 10 per cent. preference on leather, tallow, canned meats, barley, wheat flour, macaroni, dried peas, casein, eucalyptus oil, meat extracts and essences, copra, sugar of milk, sausage casings, wattle bark, asbestos and certain dried fruits.

(*d*) The Agreement also provided for a preference of 2d. per lb. on unwrought copper, but this was never implemented as Empire producers could not demonstrate their ability to continue offering their copper on first sale to the United Kingdom at prices not exceeding the world price, which was a condition of the preference. A similar condition applied to wheat, zinc and lead. In the case of zinc and lead the duty was changed from an ad valorem rate of 10 per cent. to a specific rate at an early stage in the life of the Agreement.

(*e*) Australia, although not securing in the Agreement with the United Kingdom a commitment on the amount and duration of the preference margin applying to a number of commodities of some importance to Australia (e.g. rice), had its interests safeguarded by the fact that such items were usually covered by the United Kingdom's agreement with another Empire country. Such benefits were generalized to Australia.

(*f*) The United Kingdom agreed to regulate meat imports and stated that its policy was to give the Dominions an expanding share of United Kingdom meat imports.

(*g*) Preferential tariff advantages were also obtained in the British non-self-governing colonies and protectorates.

The preferences operating before, and not increased by, the Ottawa Agreement were continued. Thus the preferential margins on heavy wines, sugar, the sugar content of goods containing added sweetening matter, currants, etc., remained in operation.

(iii) *Developments since the Ottawa Agreement.* The Australia-United Kingdom Agreement operated with virtually no alteration until the beginning of 1939. Since then three major factors have been responsible for altering its terms or significance :—

(*a*) *The United Kingdom-United States of America Trade Agreement*, 1938. This Agreement became effective from 1st January, 1939, and, to enable the United Kingdom to secure concessions from the United States of America, Australia agreed to the following reductions in the preferences which her products were enjoying in the United Kingdom :—

Wheat (preference eliminated); apples and pears (1s. 6d. per cwt. in Northern Hemisphere season); honey (2s. per cwt.); canned apples (1s. 3d. per cwt.); canned grapefruit (preference eliminated). The ad valorem duty of 15 per cent. was replaced by specific duties of 5s. 6d. per cwt. on canned fruit salad, 5s. per cwt. on canned pineapples and 4s. per cwt. on canned loganberries.

(*b*) *Long-term Contracts with United Kingdom.* During and since the war Australia has made contracts under which the United Kingdom is obligated to purchase the whole or a substantial part of the exportable surplus of several important Australian products normally entitled to preferential treatment. Meat, sugar, dried fruits, apples and pears, butter, cheese and eggs are notable examples. The tariff preference is not significant whilst these contracts are operative and is further depreciated in importance since Australia would experience no difficulty in selling primary products in a wide range of markets if supplies were available.

(*c*) *The General Agreement on Tariffs and Trade.* Australia has participated in the three rounds of tariff negotiations under this agreement held at Geneva, 1947, Annecy, 1949, and Torquay, 1950–51. In order to reach agreements with the various countries participating in these tariff negotiations Australia consented to a number of reductions in preference margins guaranteed to her under the Ottawa Agreements in return for more favorable tariff treatment in some twenty-seven countries with which agreements have been made. The reductions are summarized below :—

Apples (margin eliminated during Northern Hemisphere season); raisins (2s. per cwt.); canned peaches, pears and apricots (3 per cent. ad val.); non-tropical canned fruit salad (margin eliminated); dried apricots (2s. 6d. per cwt.); dried prunes, apples, peaches and nectarines (margin eliminated); honey (nil to 1s. 6d. per cwt. according to value for duty.) The preference margin was also modified on a number of items in which Australia was interested but on which her consent to reduction was not required under the Ottawa Agreement. Examples are fruit pulp, pig iron, rice, hard soap, glue, gelatine and size. The preference on light wine was increased from 4s. per gallon to 10s. per gallon.

11. **Tariff Board.**—The Tariff Board Act 1921–1947 provides for the appointment of a Tariff Board consisting of four members, one of whom shall be an administrative officer of the Department of Trade and Customs. This member may be appointed Chairman of the Board. Members of the Board are appointed for a term of not less than one year nor more than three years, and two members may be appointed as a Committee for making special inquiries. The purpose of the Tariff Board is to assist the Minister in the administration of matters relating to trade and customs. The more important matters which the Minister shall refer to the Board for inquiry and report include disputes arising out of the interpretation of any Customs or Excise Tariff; the necessity for new, increased or reduced duties; the necessity for granting bonuses; any proposal

for the application of the British Preferential Tariff to any part of the British Dominions or any foreign country; and any complaint that a manufacturer is taking undue advantage of the protection afforded him by the Tariff by charging unnecessarily high prices for his goods or acting in restraint of trade. The Minister may refer to the Board for inquiry and report the following matters:—the classification of goods under items of the Tariff that provide for admission under By-laws; the determination of the value of goods for duty; the general effect of the working of the Customs Tariff and the Excise Tariff; the fiscal and industrial effects of the Customs laws of the Commonwealth; the incidence between the rates of duty on raw materials and on finished or partly finished products; and any other matter affecting the encouragement of primary and secondary industries in relation to the Tariff.

Inquiries conducted by the Board relating to any revision of the Tariff, any proposal for a bounty, or any complaint that a manufacturer is taking undue advantage of the protection afforded him by the Tariff shall be held in public, and evidence in such inquiries shall be taken in public on oath, unless any witness objects to giving any evidence in public which the Board is satisfied is of a confidential nature, when the Board may take such evidence in private. Evidence taken by the Board in connexion with any inquiry under the Customs Tariff (Industries Preservation) Act 1921–1936 shall be taken in public on oath.

12. **Trade Descriptions.**—The Commerce (Trade Descriptions) Act 1905 as amended by the Acts of 1926, 1930 and 1933 gives power to compel the placing of a proper description on certain prescribed goods, or on packages containing the same, being imports or exports of the Commonwealth. The goods to which a trade description must be applied are:—(*a*) Articles used for food or drink by man, or used in the manufacture or preparation of articles used for food or drink by man; (*b*) medicines or medicinal preparations for internal or external use; (*c*) manures; (*d*) apparel (including boots and shoes) and the materials from which apparel is manufactured; (*e*) jewellery; (*f*) seeds and plants; and (*g*) brushware.

13. **Acts Passed in 1949 and 1950.**—The following Commonwealth Acts relating to Australian production and trade were assented to during the years 1949 and 1950:—

ACTS PASSED IN 1949.

Customs Act, No. 45 of 1949. An Act to amend the Customs Act 1901–1947.

Excise Act, No. 46 of 1949. An Act to amend the Excise Act 1901–1947 and for other purposes.

Customs Tariff Act, No. 76 of 1949. An Act relating to Duties of Customs.

Excise Tariff Act, No. 77 of 1949. An Act relating to Duties of Excise.

Customs Tariff (New Zealand Preference) Act, No. 78 of 1949. An Act to amend the Customs Tariff (New Zealand Preference) 1933–1948.

Customs Tariff (No. 2) Act, No. 79 of 1949. An Act relating to Duties of Customs.

Coal Excise Act, No. 81 of 1949. An Act relating to Excise on Coal.

Excise Tariff (No. 2) Act, No. 82 of 1949. An Act relating to Duties of Excise.

ACTS PASSED IN 1950.

Tariff Board Act, No. 13 of 1950. An Act to amend the Tariff Board Act 1921–1947.

Customs Tariff Act, No. 22 of 1950. An Act relating to Duties of Customs.

Customs Tariff (New Zealand Preference) Act, No. 23 of 1950. An Act to amend the Customs Tariff (New Zealand Preference) 1933–1949.

Customs Tariff (No. 2) Act, No. 32 of 1950. An Act relating to Duties of Customs.

Customs Tariff (Canadian Preference) Act, No. 33 of 1950. An Act to amend the Customs Tariff (Canadian Preference) 1934–1948.

Superphosphate Bounty Act, Repeal Act, No. 53 of 1950. An Act to repeal the Superphosphate Bounty Act, 1941.

Flax Canvas Bounty Act, No. 54 of 1950. An Act to provide for the Payment of a Bounty on the Production of Flax Canvas.

Wool Products Bounty Act, No. 55 of 1950. An Act to provide for the Payment of Bounty on the production of certain Wool Products.

Customs Act, No. 56 of 1950. An Act to amend the Customs Act 1901–1949.

Tractor Bounty Act, No. 57 of 1950. An Act to amend the Tractor Bounty Act 1939–1947.

Customs Tariff (Export Duties) Act, No. 59 of 1950. An Act relating to Export duties of Customs.

Customs Tariff (No. 3) Act, No. 60 of 1950. An Act relating to Duties of Customs.

Excise Tariff Act, No. 61 of 1950. An Act relating to Duties of Excise.

Excise Tariff (No. 2) Act, No. 62 of 1950. An Act relating to Duties of Excise.

Egg Export Control Act, No. 63 of 1950. An Act relating to Membership of the Australian Egg Board pending the holding of Elections of Members to represent Producers in each State.

§ 3. Trade Commissioner Service.

Empire and foreign countries have deemed it necessary in their trade interests to establish generous overseas representation and have for many years maintained extensive oversea trade services.

Prior to 1929, Australian representation abroad was limited to the High Commissioner's Office, in London, with a subsidiary agent in Paris, and the Office of the Commissioner-General for Australia in New York. Apart from the facilities afforded by those offices, the only form of oversea trade representation available to Australia was that of the British Oversea Trade Service, a service whose activities are naturally more particularly devoted to the development of United Kingdom rather than Dominion trade.

The growing importance of Australia's trade with Canada led to the appointment in 1929 of an Australian Trade Commissioner in that country. The part played by that official in the subsequent negotiation of the Trade Agreement with Canada, in the cultivation of close and cordial relations with the Canadian authorities, and in general in focussing interest on Australia and Australian products, amply demonstrated the value of such appointments both to the Commonwealth Government and the Australian trading community.

The general advantages to be derived from the appointment of Trade Commissioners may be briefly stated as follows :—(*a*) fostering of goodwill, (*b*) correction and avoidance of misunderstandings, and (*c*) dissemination of knowledge concerning the respective countries. Particular facilities which they are able to afford to the trading community are (*a*) information as to present and prospective demand for goods, (*b*) information as to foreign and local competition, (*c*) advice as to best selling methods, (*d*) reports as to the standing of foreign buyers, (*e*) specification of articles in demand, (*f*) dealing with trade inquiries, (*g*) advice and assistance to commercial visitors regarding trade matters, (*h*) settlement of difficulties between exporters in Australia and buyers abroad, and (*i*) furnishing of information as to foreign import requirements, customs duties, trade regulations, etc.

In addition to the foregoing particular trading functions, it is the duty of a Trade Commissioner to watch and advise the Government regarding any developments in his Territory affecting not only trade and commerce, but any other matters of concern to his home Government.

Trade Commissioners are drawn either from the commercial world or from the ranks of the Public Service as circumstances dictate. With each Trade Commissioner, however, it is customary to provide an Assistant Trade Commissioner, who is selected to undergo training in the service and qualify at a later stage for appointment as a Trade Commissioner. The staffing arrangements are in this way designed to enable the Government to avail itself of the best procurable executives of either the Public Service or the commercial world and at the same time to build up a first class personnel to carry out a vigorous policy of expansion in connexion with Australia's oversea trade.

The oversea trade representation is shown in Chapter XXIX.—Miscellaneous.

§ 4. Method of Recording Imports and Exports.

1. **Customs Area.**—The Customs Area, to which all oversea trade statistics issued by this Bureau apply, is the whole area of the Commonwealth of Australia, comprising the States of New South Wales (including the Australian Capital Territory), Victoria, Queensland, South Australia, Western Australia and Tasmania, and the Northern Territory. Non-contiguous territories and mandated areas are treated as outside countries, and trade transactions between Australia and these non-contiguous territories are part of the oversea trade of Australia. Such transactions are shown separately, i.e., the trade of Australia with each particular country is separately recorded and tabulated.

2. **The Trade System.**—There are two generally accepted systems of recording oversea trade statistics, namely, (*a*) special trade and (*b*) general trade. The United Nations Statistical Office defines the two systems as follows :—

(*a*) *Special Trade.* Special imports are the combined total of imports directly for domestic consumption and withdrawals from bonded warehouses or free zones for domestic consumption, transformation or repair. Special exports comprise exports of national merchandise, namely goods wholly or partly produced or manufactured in the country, together with exports of nationalized goods. (Nationalized goods are goods which, having been included in special imports, are then exported).

(*b*) *General Trade.* General imports are the combined total of imports directly for domestic consumption and imports into bonded warehouse or free zone. Direct transit trade and trans-shipment under bond are excluded. General exports are the combined total of national exports and re-exports of imported merchandise including withdrawals from bonded warehouse or free zone for re-export.

Both special and general trade statistics are published by the Bureau, greater emphasis being placed on the latter. Special exports can be readily identified in the general export tabulations while special imports are obtained from separate tabulations.

Except for those appearing in § 14 para. 2, the tables which follow refer to general trade.

3. **Statistical Classification of Imports and Exports.**—Statistics of oversea imports and exports from which the summary tables in this issue of the Official Year Book have been extracted were compiled according to the revised classification which came into operation on 1st July, 1945. This classification which is designed to allow for the inclusion of items which become significant with varying trade conditions provides for nearly 3,000 separate import items and approximately 1,500 export items.

4. **The Trade Year.**—From 1st July, 1914 the statistics relating to Oversea Trade have been shown according to the financial year (July to June). Prior to that date the figures related to the calendar year. A table is included in § 15 showing the total value of imports and exports in the calendar years 1939 and 1949 to 1951 inclusive.

5. **Valuation.**—(i) *Imports.* The recorded value of goods imported from countries beyond Australia as shown in the following tables represents the amount on which duty is payable or would be payable if the duty were charged ad valorem. By Act No. 54 of 1947, which operated from 15th November, 1947, the Customs Act was amended to provide that the value for duty of goods imported into Australia should be the f.o.b. value in Australian currency instead of the British currency f.o.b. value plus 10 per cent.

Section 154 (1) of the Customs Act 1901–1947 provides that "when any duty is imposed according to value, the value for duty shall be the sum of the following :—

(*a*) (i) the actual money price paid or to be paid for the goods by the Australian importer plus any special deduction, or

(ii) the current domestic value of the goods, whichever is the higher ;

(*b*) all charges payable or ordinarily payable for placing the goods free on board at the port of export ;".

"Current domestic value" is defined as "the amount for which the seller of the goods to the purchaser in Australia is selling or would be prepared to sell for cash, at the date of exportation of those goods, the same quantity of identically similar goods to any and every purchaser in the country of export for consumption in that country". All import values shown throughout this and other chapters of this issue of the Official Year Book are therefore uniform f.o.b. values in Australian currency.

(ii) *Exports.* Prior to 1st July, 1929 the recorded value of all goods exported was taken as representing the value in the principal markets of Australia in the ordinary commercial acceptation of the term. Owing to the inflated values arbitrarily allotted in recent years to commodities which are subject to governmental control or subsidy, some change in the practice of valuation of exports of such commodities became desirable. Accordingly a new basis was adopted, as from 1st July, 1929, for the statistical valuation of exports of sugar, butter and goods on which bounty or rebate was paid, which would show for (*a*) *Sugar*—the value f.o.b. at which sold to oversea buyers, or a f.o.b. value equal to the London market price if shipped on consignment ; (*b*) *Goods on which bounty or rebate was paid on export*—the value in the principal markets of Australia in the ordinary commercial acceptation of the term, less the value of any bounty or rebate. Until 31st March, 1934, the basis adopted for the value of exports of *butter* was the current market value, less the amount paid as export bonus. From 31st March, 1934 to 30th June, 1937, the basis was (*a*) sold in Australia for export—the f.o.b. equivalent of the price at which the butter was sold, and (*b*) shipped on consignment—the f.o.b. equivalent of the ruling price overseas.

From 1st July, 1930 to 30th June, 1937, the basis adopted for the value of *wool* exported was (*a*) sold in Australia for export—the actual price paid plus the cost of services incurred in placing the wool on board ship, and (*b*) shipped on consignment—the f.o.b. equivalent of ruling Australian prices.

From 1st July, 1932 to 30th June, 1937, the basis adopted for the value of *wheat* exported was (*a*) sold in Australia for export—the f.o.b. equivalent of the price at which the wheat was sold, and (*b*) shipped on consignment—the f.o.b. equivalent of the current selling price overseas.

From 1st July, 1934 to 30th June, 1937, the basis adopted for the value of *flour* exported was (*a*) sold in Australia for export—the f.o.b. equivalent of the price at which the flour was sold, and (*b*) shipped on consignment—the f.o.b. equivalent of ruling Australian prices.

Since 1st July, 1937, the following revised definitions of f.o.b. values have been adopted for exports generally :—

(1) Goods sold to oversea buyers before export—the f.o.b. equivalent of the price at which the goods were sold (e.g. as regards wool, the actual price paid by the oversea buyer plus the cost of all services incurred by him in placing the wool on board ship).

(2) Goods shipped on consignment—the Australian f.o.b. equivalent of the current price offering for similar goods of Australian origin in the principal markets of the country to which the goods were despatched for sale (as regards wool, the f.o.b. equivalent of current price ruling in Australia will normally provide a sufficient approximation to the f.o.b. equivalent of the price ultimately received).

Exporters are required to show all values in terms of Australian currency, and to include cost of containers.

6. **Inclusions and Exclusions.**—(i) *Ships' Stores.* Prior to 1906 goods shipped in Australian ports on oversea vessels as ships' stores were included as exports. From 1906, ships' stores have been specially recorded as such, and omitted from the tabulation of exports. A table showing the value of these stores (including bunker coal and oil) shipped each year since 1942–43 compared with 1938–39 is shown in § 10. page 497.

(ii) *Outside Packages.* Outside packages have always been included in the tabulation of imports but apart from those received from United Kingdom a classification according to country of origin has been available only since 1950–51.

(iii) *Trade on Government Account.* Imports and exports on Government account are treated as normal transactions and are an integral part of oversea trade transactions.

(iv) *Currency and Coinage.* Currency notes and coins of base metal are included in the oversea trade statistics at their commodity value only.

(v) *Gold Content of Ores and Concentrates.* The value of ores and concentrates imported and exported includes the value of the gold content. The latter is not recorded separately for purposes of inclusion in imports and exports of gold.

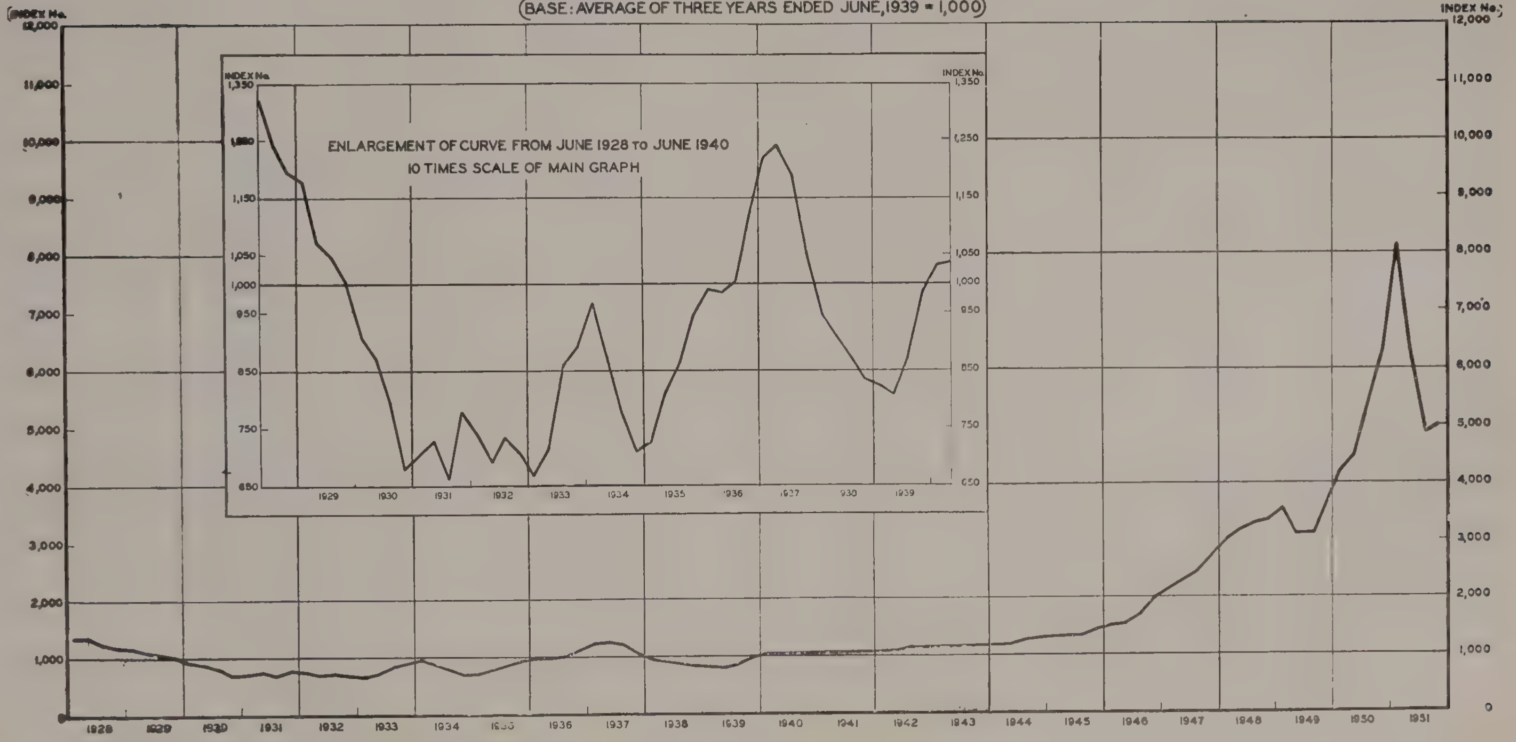
7. **Pre-Federation Records.**—In the years preceding Federation each State independently recorded its trade, and in so doing did not distinguish other Australian States from foreign countries. As the aggregation of the records of the several States is necessarily the only available means of ascertaining the trade of Australia for comparison with later years, it is unfortunate that past records of values and the direction of imports and exports were not on uniform lines. The figures in the following tables for years prior to Federation have been carefully compiled and may be taken as representative of the oversea trade of Australia as a whole. On the introduction of the Customs Act 1901 the methods of recording values were made uniform throughout the States.

8. **Countries to which Imports Relate.**—From 1st January, 1905, in addition to the record of the countries whence goods directly arrived in Australia, a record of the countries of their origin was kept as it was considered that classification of imports according to country of origin was of greater interest and value than classification according to country of shipment. Up to and including the year 1920–21, imports continued to be classified both according to country of shipment and according to country of origin but the former tabulation was discontinued as from the year 1921–22.

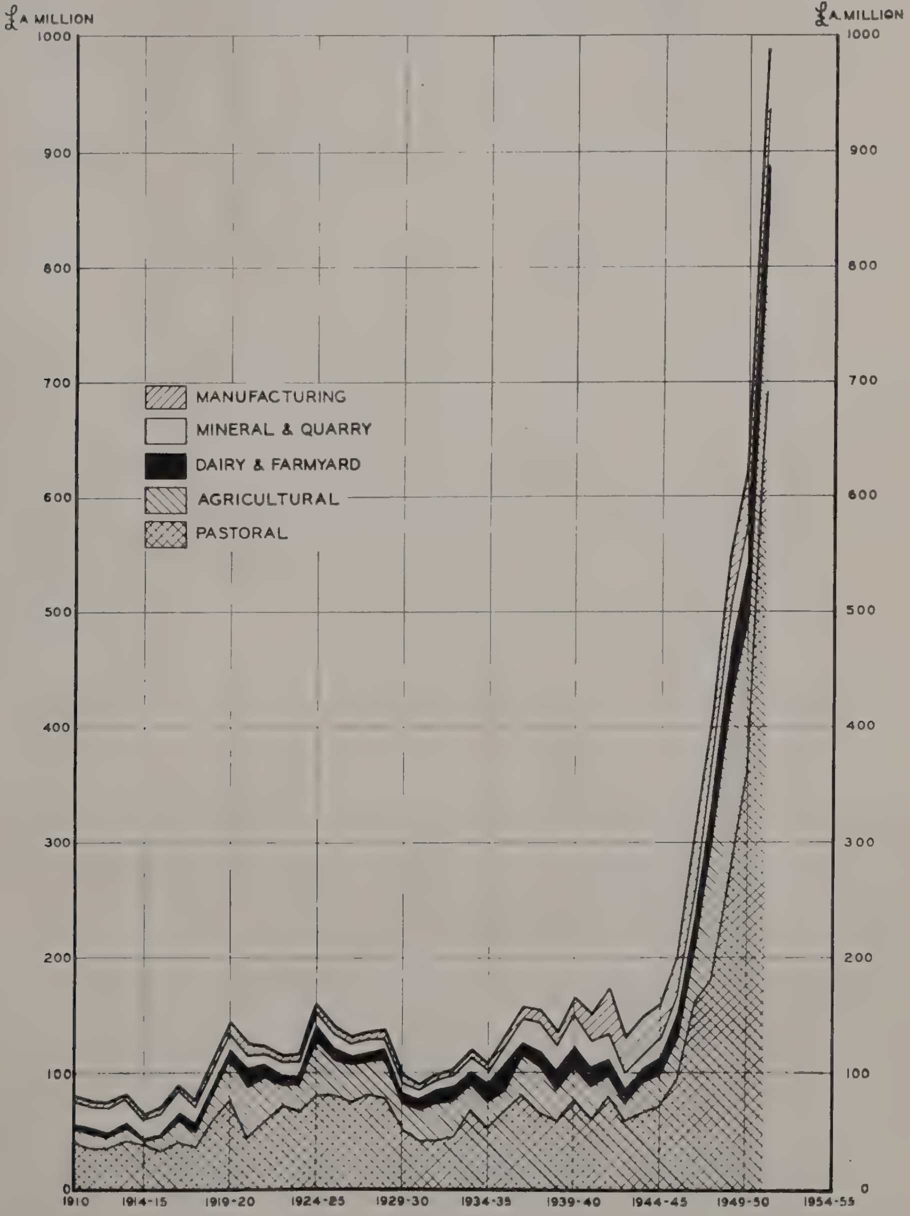
EXPORT PRICE INDEX-NUMBERS: AUSTRALIA, 1928 TO 1951

SIMPLE AGGREGATIVE INDEX: FIXED WEIGHTS

(BASE: AVERAGE OF THREE YEARS ENDED JUNE, 1939 = 1,000)

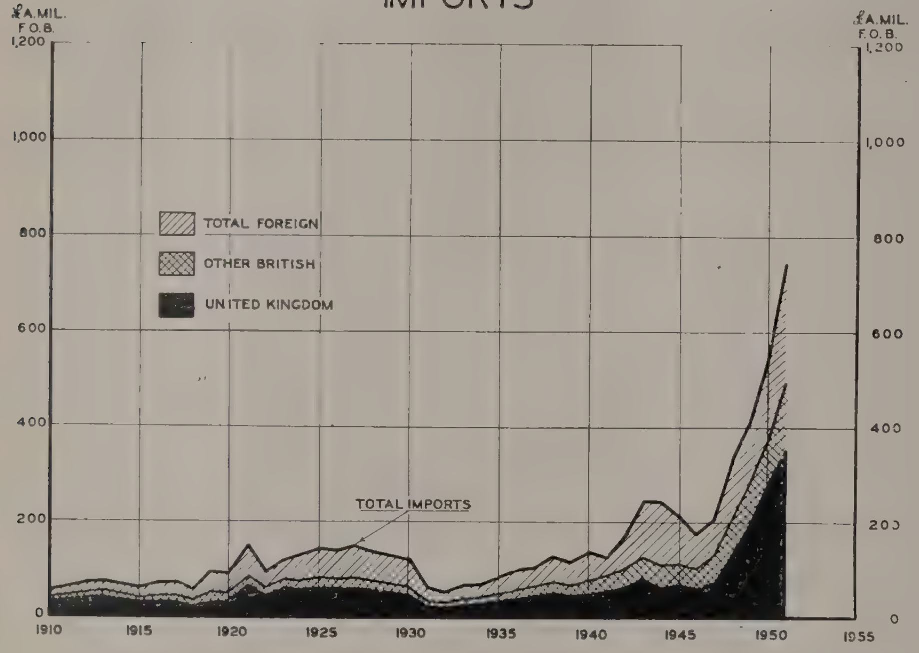


EXPORTS OF AUSTRALIAN PRODUCTS ACCORDING TO INDUSTRY, 1910 TO 1950-51

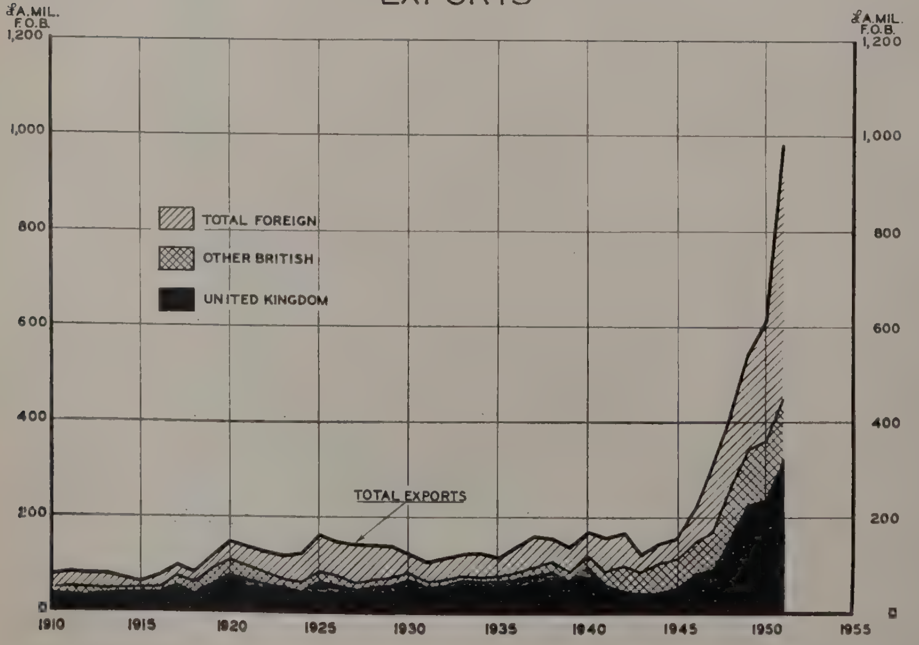


OVERSEA TRADE: AUSTRALIA, 1910 TO 1951

IMPORTS



EXPORTS



§ 5. Oversea Trade.

1. **Total Oversea Trade.**—(i) *Including Gold.* The following table shows the total trade (including gold) of Australia with oversea countries from the earliest date for which records are available. To save space, the period 1826 to 1940–41 has been divided into five-yearly periods, and the figures shown represent the annual averages for the periods specified. Figures for individual years were published in earlier issues of the Official Year Book but it should be borne in mind that the figures for imports in issues prior to No. 38 are in British currency. (*See* note to following table.)

In this chapter the values in all tables of imports and exports are shown in Australian currency f.o.b.

TOTAL OVERSEA TRADE: AUSTRALIA.

(INCLUDING GOLD.)

Period.(*a*)	Value (£'000).			Value per Head of Population.			Ratio of Exports to Imports.
	Imports.	Exports.	Total.	Imports.	Exports.	Total.	
				£	£	£	%
1826 to 30	580	153	733	9.7	2.5	12.2	26.4
1831 „ 35	1,040	613	1,653	10.9	6.4	17.3	58.9
1836 „ 40	2,075	1,112	3,187	13.4	7.2	20.6	53.6
1841 „ 45	1,733	1,378	3,111	6.9	5.5	12.4	79.5
1846 „ 50	2,163	2,264	4,427	6.3	6.6	12.9	104.7
1851 „ 55	10,846	11,414	22,260	17.8	18.8	36.6	105.2
1856 „ 60	17,105	16,019	33,124	16.6	15.6	32.2	93.7
1861 „ 65	18,302	18,699	37,001	14.4	14.7	29.1	102.2
1866 „ 70	16,992	19,417	36,409	11.0	12.6	23.6	114.3
1871 „ 75	19,984	24,247	44,231	11.1	13.5	24.6	121.3
1876 „ 80	22,384	23,772	46,156	10.7	11.3	22.0	106.2
1881 „ 85	31,723	28,055	59,778	12.7	11.2	23.9	88.4
1886 „ 90	31,523	26,579	58,102	10.6	8.9	19.5	84.3
1891 „ 95	24,850	33,683	58,533	7.4	10.0	17.4	135.5
1896 „ 1900	30,694	41,094	71,788	8.4	11.2	19.6	133.9
1901 „ 05	35,689	51,237	86,926	9.1	13.1	22.2	143.6
1906 „ 10	46,825	(*b*)69,336	116,161	11.0	16.3	27.3	148.1
1911 „ 15-16	66,737	74,504	141,241	13.8	15.4	29.2	111.6
1916–17 to 1920–21	91,577	115,066	206,643	17.4	21.9	39.3	125.6
1921–22 to 1925–26	124,404	134,545	258,949	21.1	22.9	44.0	108.2
1926–27 to 1930–31	119,337	131,382	250,719	18.6	20.5	39.1	110.1
1931–32 to 1935–36	73,798	120,958	194,756	11.1	18.1	29.2	163.9
1936–37 to 1940–41	123,553	157,610	281,163	17.8	22.7	40.5	127.6
1941–42 ..	173,593	168,977	342,570	24.3	23.6	47.9	97.3
1942–43 ..	245,762	125,557	371,319	34.1	17.4	51.5	51.1
1943–44 ..	244,350	146,682	391,032	33.6	20.2	53.8	60.0
1944–45 ..	215,008	155,271	370,279	29.3	21.1	50.4	72.2
1945–46 ..	178,857	223,288	402,145	24.1	30.0	54.1	124.8
1946–47 ..	209,485	309,029	518,514	27.9	41.1	69.0	147.5
1947–48 ..	339,746	409,954	749,700	44.5	53.6	98.1	120.7
1948–49 ..	415,194	542,673	957,867	53.2	69.6	122.8	130.7
1949–50 ..	538,069	613,697	1,151,766	66.8	76.3	143.1	114.1
1950–51 ..	743,871	981,796	1,725,667	89.5	118.1	207.6	132.0

(*a*) The figures shown for the years 1826 to 1940–41 represent the annual averages for the periods covered. The trade of the individual years will be found in Official Year Book No. 35 and earlier issues but it should be noted that imports are shown in British currency. From 1914–15 onwards the particulars relate to financial years. (*b*) Prior to 1906, ships' stores were included in exports. For value of such goods shipped on oversea vessels each year since 1938–39 *see* later table, § 10.

In issues of the Official Year Book prior to No. 23 fluctuations in the value of the oversea trade of Australia for earlier years have been treated in some detail. The enhanced prices ruling for commodities and the peculiar conditions affecting Australian trade were responsible for the high value of imports in the years following the 1914–18 War and these factors should be taken into consideration in making comparisons with earlier years.

In 1924–25 the total value of oversea trade exceeded £300 million for the first time. Of the total value of trade, amounting to £318,454,000, imports represented £157,143,000 and exports £161,311,000. Imports in 1924–25, however, included an exceptionally large quantity of bullion and specie valued at £10,543,000. In the three years ended 1928–29 imports fell but exports were well maintained, but in 1929–30 both imports and exports declined substantially. The full effects of the economic depression are reflected in the greatly diminished trade figures for 1930–31 and some years thereafter. The lowest level was recorded in 1931–32 when the total trade amounted to £137,538,000. Following a gradual improvement in 1933–34 and 1934–35, recovery was more rapid in the three years ended 1937–38, owing generally to higher prices for exports of primary products and the rising flow of imports. In 1937–38, however, export prices fell sharply and declined still further in 1938–39. In 1939–40 the value of trade rose substantially as a result of increases in the value of both imports and exports, but declined again in 1940–41, mainly due to import restrictions and scarcity of shipping.

The outbreak of war in the Pacific in 1941 resulted in an enormous increase in the value of imports during the years 1941–42 to 1945–46. Fluctuating yearly increases in the value of exports were recorded during the same period. During 1946–47 the value of total trade reached £518,514,000, due largely to substantial increases in import and export prices.

Import and export values continued to soar during the following four years. The total value of trade in 1947–48 amounted to £749,700,000 (imports, £339,746,000 and exports, £409,954,000); in 1948–49 to £957,867,000 (imports, £415,194,000 and exports, £542,673,000); in 1949–50 to £1,151,766,000 (imports, £538,069,000 and exports £613,697,000); and in 1950–51 the record total of £1,725,667,000 was reached, when imports and exports attained the record totals of £743,871,000 and £981,796,000 respectively.

(ii) *Excluding Gold.* The fluctuations in merchandise trade (including silver as merchandise) are shown more clearly in the following table, from which *all* gold movements have been excluded :—

OVERSEA TRADE : AUSTRALIA.

(EXCLUDING GOLD.)

Year.	Imports excluding Gold.	Exports excluding Gold.	Total Trade excluding Gold.	Value per Head of Population. Imports.	Value per Head of Population. Exports.	Value per Head of Population. Total Trade.	Ratio of Exports to Imports.
	£'000.	£'000.	£'000.	£ s. d.	£ s. d.	£ s. d.	%
1938–39	113,298	122,543	235,841	16 6 10	17 13 5	34 0 3	108.2
1946–47	208,362	309,027	517,389	27 14 2	41 1 10	68 16 0	148.3
1947–48	338,103	406,123	744,226	44 5 3	53 3 2	97 8 5	120.1
1948–49	414,086	542,668	956,754	53 1 9	69 11 7	122 13 4	131.1
1949–50	536,146	613,695	1,149,841	66 12 1	76 4 10	142 16 11	114.5
1950–51	741,412	981,796	1,723,208	89 3 11	118 2 7	207 6 6	132.4

2. **Balance of Trade.**—The table on page 475 shows the ratio of exports to imports (including gold) for five-yearly periods from 1826 to 1940–41 and for each year from 1941–42 to 1950–51, while the table above shows the ratio of exports to imports (excluding gold) for each year 1946–47 to 1950–51 compared with 1938–39. Reference to the first-mentioned table shows that subsequent to the five-yearly period 1886–90 the balance of trade, for all periods to 1936–37 to 1940–41, had been on the side of exports. The

position was reversed, however, during the war years 1941–42 to 1944–45 when each year recorded a substantial excess of imports. The post-war years to 1950–51 have again shown record balances in favour of exports.

In the following table the balance of commodity trade, including the value of gold currently produced in Australia, has been separated from the monetary movement of gold :—

COMMODITY BALANCE OF TRADE AND MONETARY MOVEMENT OF GOLD.

(£ Million.)

Year.	A. Total Imports other than Gold.	B. Total Exports other than Gold.	C. Gold produced in Australia.	D. Total of Merchandise Exports and Gold Production.	E. Commodity Balance of Trade.	F. Net Exports of Gold in excess of Production.	G. Total Balance.
				B+C	D−A	F	E+F
1910 ..	53.7	69.8	11.6	81.4	27.7	− 7.9	19.8
1911 ..	59.4	67.5	10.5	78.0	18.6	− 0.1	18.5
1912 ..	69.8	66.8	9.9	76.7	6.9	1.1	8.0
1913 ..	73.1	75.1	9.4	84.5	11.4	− 7.3	4.1
1914 (*a*) ..	35.5	36.5	4.4	40.9	5.4	− 3.7	1.7
1914–15 ..	58.2	58.0	8.5	66.5	8.3	− 6.3	2.0
1915–16 ..	70.2	64.2	7.7	71.9	1.7	2.3	4.0
1916–17 ..	69.1	86.3	6.6	92.9	23.8	4.8	28.6
1917–18 ..	55.3	75.0	5.8	80.8	25.5	− 0.9	24.6
1918–19 ..	86.7	106.8	5.4	112.2	25.5	− 5.6	19.9
1919–20 ..	89.9	144.3	5.4	149.7	59.8	0.1	59.9
1920–21 ..	148.9	126.8	4.7	131.5	− 17.4	0.6	− 16.8
1921–22 ..	93.7	124.3	3.8	128.1	34.4	− 0.3	34.1
1922–23 ..	119.8	115.6	3.3	118.9	− 0.9	− 1.1	− 2.0
1923–24 ..	127.8	116.7	3.2	119.9	− 7.9	− 0.4	− 8.3
1924–25 ..	133.3	160.4	2.8	163.2	29.9	−12.3	17.6
1925–26 ..	137.9	141.9	2.3	144.2	6.3	1.7	8.0
1926–27 ..	149.8	132.7	2.2	134.9	− 14.9	8.6	− 6.3
1927–28 ..	133.6	138.4	2.1	140.5	6.9	− 0.3	6.6
1928–29 ..	130.3	138.6	1.9	140.5	10.2	0.8	11.0
1929–30 ..	118.9	98.1	1.9	100.0	− 18.9	24.7	5.8
1930–31 ..	62.2	90.6	2.5	93.1	30.9	11.5	42.4
1931–32 ..	51.0	97.1	4.5	101.6	50.6	6.6	57.2
1932–33 ..	64.9	98.7	5.8	104.5	39.6	15.3	54.9
1933–34 ..	67.8	114.2	7.1	121.3	53.5	1.2	54.7
1934–35 ..	82.7	103.4	7.4	110.8	28.1	0.6	28.7
1935–36 ..	95.3	124.1	9.2	133.3	38.0	1.6	39.6
1936–37 ..	103.3	148.2	11.3	159.5	56.2	0.4	56.6
1937–38 ..	127.5	141.3	12.8	154.1	26.6	0.8	27.4
1938–39 ..	113.3	122.5	14.6	137.1	23.8	0.2	24.0
1939–40 ..	131.9	149.4	17.6	167.0	35.1	− 1.7	33.4
1940–41 ..	123.9	134.9	16.4	151.3	27.4	1.8	29.2
1941–42 ..	170.3	158.9	14.7	173.6	3.3	− 7.9	− 4.6
1942–43 ..	244.2	125.5	9.7	135.2	−109.0	−11.2	−120.2
1943–44 ..	242.8	146.6	7.1	153.7	− 89.1	− 8.6	− 97.7
1944–45 ..	213.6	155.3	6.9	162.2	− 51.4	− 8.2	− 59.6
1945–46 ..	177.7	196.9	7.4	204.3	26.6	17.8	44.4
1946–47 ..	208.4	309.0	9.8	318.8	110.4	−10.9	99.5
1947–48 ..	338.1	406.1	9.7	415.8	77.7	− 7.4	70.3
1948–49 ..	414.1	542.7	10.1	552.8	138.7	−11.2	127.5
1949–50 ..	536.1	613.7	13.4	627.1	91.0	−15.4	75.6
1950–51 ..	741.4	981.8	13.6	995.4	254.0	−16.1	237.9

(*a*) First six months only.

NOTE.—From 1939–40 onward, under contracts with the British Government, Australia received payment for some exportable commodities (e.g., wool, etc.) irrespective of when the goods were shipped. Payments for exportable goods were somewhat larger than the recorded value of exports, and payments relating to the balance of trade were more favorable than is indicated by the figures above which relate only to goods actually shipped.

The balance of visible trade, including the net movement of precious metals, does not present a complete picture of Australia's international transactions during each year. Allowance must also be made for unrecorded imports and exports, for services rendered and received, and for international capital and interest transactions. Tables analysing these values for the years 1948–49 to 1950–51 will be found in § 17 of this chapter.

§ 6. Direction of Oversea Trade.

1. **Imports according to Country of Origin.**—(i) *Values.* The following table shows the value of the imports into Australia, during the years 1946–47 to 1950–51 compared with the year 1938–39, of commodities stated to be the produce or manufacture of the undermentioned countries.

AUSTRALIAN IMPORTS : COUNTRIES OF ORIGIN.

(EXCLUDING GOLD.)

(£'000.)

Country of Origin.	1938–39.	1946–47.	1947–48.	1948–49.	1949–50.	1950–51.
British Countries—						
United Kingdom ..	46,079	74,573	132,238	209,313	278,748	356.881
Australian Territories—						
Nauru	741	236	359	1,033	1,264	1,175
New Guinea	189	267	885	1,384	1,635	1,794
Papua	237	189	174	228	305	953
Canada	8,806	16,667	15,341	11,952	13,276	16,957
Ceylon	957	6,570	8,133	7,512	8,937	11,317
India	3,272	17,444	26,698	25,862	27,664	35,424
Malaya, Federation of ..	1,029	3,140	3,863	4,028	4,926	20,647
New Zealand	1,618	2,875	3,436	3,649	3,728	3,106
Union of South Africa ..	278	1,386	3,232	2,714	3,640	5,320
Other British Countries ..	1,984	6,642	11,766	18,605	23,448	37,294
Total, British Countries	65,190	129,989	206.125	286,280	367,571	490,868
Foreign Countries—						
Belgium	1,120	1,596	5,220	3,557	3,589	11,350
China	526	1,148	1,667	2,542	1,451	2,657
France	1,172	1,674	3,118	3,998	10,645	16,414
Germany	4,710	143	639	1,849	6,584	14,726
Indonesia, Republic of ..	8,117	213	4,419	11,097	14,750	21,788
Italy	781	2,777	2,710	3,797	9,058	16,655
Japan	4,666	697	1,433	1,711	6,999	15,595
Netherlands	799	476	2,595	3,874	3,203	8,231
Norway	432	711	3,174	4,367	3,100	4,962
Philippines Republic ..	138	4	48	14	69	52
Sweden	1,079	1,534	4,905	9,225	7,755	16,298
Switzerland	1,072	1,083	1,951	2,418	2,758	5,077
United States of America ..	16,696	39,791	66,826	41,527	52,248	60,878
Other Foreign Countries ..	4,166	18,608	25,673	28,630	35,270	55,523
Total, Foreign Countries	45.474	70,455	124,378	118,606	157,479	250,206
Origin not Disclosed ..	..	3,740	1,000	1,175	226	338
Outside Packages	2,634	4,178	6,600	8,025	10,871	(a)
Total	113,298	208,362	338,103	414,086	536,147	741,412

(a) Outside packages distributed according to country of origin.

(ii) *Percentages.* In view of the fluctuations in the total values of imports it is somewhat difficult to ascertain from the preceding table the relative importance of the various countries in the import trade of Australia. A better idea of the proportions of imports supplied by the various countries may be obtained from the following table of percentages.

AUSTRALIAN IMPORTS: PROPORTIONS FROM COUNTRIES OF ORIGIN.

(EXCLUDING GOLD.)

(Per Cent. of Total.)

Country of Origin.	1938–39.	1946–47.	1947–48.	1948–49.	1949–50.	1950–51.
British Countries—						
United Kingdom	40.67	35.79	39.11	50.55	51.99	48.13
Australian Territories—						
Nauru	0.65	0.11	0.11	0.25	0.24	0.16
New Guinea	0.17	0.13	0.26	0.33	0.30	0.24
Papua	0.21	0.09	0.05	0.06	0.06	0.13
Canada	7.77	7.97	4.54	2.89	2.48	2.29
Ceylon	0.84	3.15	2.40	1.81	1.67	1.53
India	2.89	8.37	7.90	6.25	5.16	4.78
Malaya, Federation of	0.91	1.51	1.14	0.97	0.92	2.78
New Zealand	1.43	1.38	1.02	0.88	0.69	0.42
Union of South Africa	0.25	0.67	0.96	0.66	0.68	0.72
Other British Countries	1.75	3.22	3.48	4.49	4.37	5.03
Total, British Countries	57.54	62.39	60.97	69.14	68.56	66.21
Foreign Countries—						
Belgium	0.99	0.77	1.54	0.86	0.67	1.53
China	0.46	0.55	0.49	0.61	0.27	0.36
France	1.03	0.80	0.92	0.97	1.99	2.21
Germany	4.16	0.07	0.19	0.45	1.23	1.99
Indonesia, Republic of	7.16	0.10	1.31	2.68	2.75	2.93
Italy	0.69	1.33	0.80	0.92	1.69	2.25
Japan	4.12	0.33	0.42	0.41	1.30	2.10
Netherlands	0.71	0.23	0.77	0.94	0.60	1.11
Norway	0.38	0.34	0.94	1.05	0.58	0.67
Philippines Republic	0.12	..	0.02	..	0.01	0.01
Sweden	0.95	0.74	1.45	2.23	1.45	2.20
Switzerland	0.95	0.52	0.58	0.58	0.51	0.68
United States of America	14.74	19.10	19.77	10.03	9.74	8.21
Other Foreign Countries	3.68	8.93	7.59	6.91	6.58	7.49
Total, Foreign Countries	40.14	33.81	36.79	28.64	29.37	33.74
Origin not Disclosed	..	1.79	0.29	0.28	0.04	0.05
Outside Packages	2.32	2.01	1.95	1.94	2.03	(a)
Total	100.00	100.00	100.00	100.00	100.00	100.00

(a) Outside packages distributed according to country of origin.

Imports from the United Kingdom were 48.14 per cent. of the total value of imports during 1950–51 compared with 40.67 per cent. during 1938–39. Imports from the United States of America have diminished during recent years to 8.21 per cent. in 1950–51 compared with 14.74 per cent. during the year 1938–39.

2. **Exports according to Destination.**—(i) *Values.* The following table shows the value of commodity exports to the principal countries during the years 1938–39 and 1946–47 to 1950–51.

EXPORTS FROM AUSTRALIA TO VARIOUS COUNTRIES.

(EXCLUDING GOLD.)

(£'000.)

Country of Destination.	1938–39.	1946–47.	1947–48.	1948–49.	1949–50.	1950–51.
British Countries—						
United Kingdom ..	66,725	89,633	152,104	229,794	237,525	320,605
Canada	1,994	5,251	5,009	8,647	9,048	17,212
Ceylon	1,327	7,116	10,213	8,801	6,070	8,950
Fiji	623	1,573	2,060	2,202	2,419	2,628
Hong Kong	475	6,622	6,365	3,875	6,848	5,968
India	1,965	13,029	26,689	25,986	37,034	21,981
Malaya, Federation of ..	1,911	18,353	7,785	6,101	5,566	8,214
Mauritius	109	1,886	2,234	1,093	1,637	7,114
New Zealand	6,682	12,923	15,258	17,343	21,286	3,275
Papua	299	1,236	1,619	1,962	2,484	2.749
Union of South Africa ..	813	3,913	2,772	5,103	2,832	4,178
Other British Possessions..	2,255	8,568	26,882	25,622	23,169	43,468
Total, British Countries	85,178	170,103	258,990	336,529	355,918	446,342
Foreign Countries—						
Belgium	5,547	19,084	19,261	19,935	27,492	48,245
Chile and Peru	3	18	6	81	1,465	3,072
China	3,023	6,067	2,757	1,438	502	850
Egypt	601	4,495	5,852	9,531	9,696	22,306
France..	9,379	20,694	36,483	46,608	40,661	89,820
Germany	2,652	1,395	4,021	4,141	16,578	27,738
Indonesia, Republic of ..	1.373	486	132	1,285	507	3,243
Italy	1,211	13,218	11,860	29,054	19,406	49,010
Japan	4,866	5,594	2,506	7,389	23,974	61,550
Netherlands	1,039	2,353	3,373	4,532	9,878	11,240
Norway	25	517	1,024	328	1,375	1,507
Philippines Republic ..	499	454	256	514	654	478
Sweden	637	3,224	3,037	4,545	5,044	12,426
United States of America..	3,614	47,599	35,074	32,289	49,644	148,830
U.S.S.R. (Russia) ..	278	626	2,858	12,360	11,187	8,396
Other Foreign Countries ..	2,618	13,100	18,633	32,109	39,714	46,743
Total, Foreign Countries	37,365	138,924	147,133	206,139	257,777	535,454
Total	122,543	309,027	406,123	542,668	613,695	981,796

(ii) *Percentages.* The relative importance of various countries as markets for Australian produce is shown by the following table of percentages. Exports to the United Kingdom were 32.65 per cent. and all British countries 45.46 per cent. of the total in 1950–51, compared with 54.45 per cent. and 69.51 per cent. respectively during 1938–39.

Foreign countries absorbed 54.54 per cent. of the total exports during 1950–51 compared with 30.49 per cent. during the year 1938–39.

EXPORTS FROM AUSTRALIA : PROPORTIONS TO VARIOUS COUNTRIES.

(Excluding Gold.)

(Per Cent. of Total.)

Country of Destination.	1938–39.	1946–47.	1947–48.	1948–49.	1949–50.	1950–51.
British Countries—						
United Kingdom ..	54.45	29.01	37.45	42.35	38.70	32.65
Canada	1.63	1.70	1.23	1.59	1.47	1.75
Ceylon	1.08	2.30	2.51	1.62	0.99	0.91
Fiji	0.51	0.51	0.51	0.41	0.40	0.27
Hong Kong	0.39	2.14	1.57	0.71	1.12	0.61
India	1.60	4.22	6.57	4.79	6.03	2.24
Malaya, Federation of ..	1.56	5.94	1.92	1.12	0.91	0.84
Mauritius	0.09	0.61	0.55	0.20	0.27	0.72
New Zealand	5.45	4.18	3.76	3.20	3.47	0.33
Papua	0.25	0.40	0.40	0.36	0.40	0.28
Union of South Africa ..	0.66	1.27	0.68	0.94	0.46	0.43
Other British Possessions..	1.84	2.76	6.62	4.72	3.78	4.43
Total, British Countries	69.51	55.04	63.77	62.01	58.00	45.46
Foreign Countries—						
Belgium	4.53	6.18	4.74	3.67	4.48	4.91
Chile and Peru	..	..	..	0.01	0.24	0.31
China	2.46	1.96	0.68	0.27	0.08	0.09
Egypt	0.49	1.46	1.44	1.76	1.58	2.27
France..	7.65	6.70	8.99	8.59	6.63	9.15
Germany	2.17	0.45	0.99	0.76	2.70	2.83
Indonesia, Republic of ..	1.12	0.16	0.03	0.24	0.08	0.33
Italy	0.99	4.28	2.92	5.35	3.16	4.99
Japan	3.97	1.81	0.62	1.36	3.91	6.27
Netherlands	0.85	0.76	0.83	0.84	1.61	1.14
Norway	0.02	0.17	0.25	0.06	0.22	0.15
Philippines Republic ..	0.41	0.15	0.06	0.09	0.11	0.05
Sweden	0.52	1.04	0.75	0.84	0.82	1.27
United States of America..	2.95	15.40	8.64	5.95	8.09	15.16
U.S.S.R. (Russia) ..	0.23	0.20	0.70	2.28	1.82	0.86
Other Foreign Countries ..	2.13	4.24	4.59	5.92	6.47	4.76
Total, Foreign Countries	30.49	44.96	36.23	37.99	42.00	54.54
Total	100.00	100.00	100.00	100.00	100.00	100.00

3. **Balance of Trade with Principal Countries.**—In the following table a comparison is made of the total Australian trade in merchandise (excluding bullion and specie) with principal countries during the years 1938–39 and 1950–51.

BALANCE OF AUSTRALIAN TRADE WITH PRINCIPAL COUNTRIES.

(EXCLUDING BULLION AND SPECIE.)

(£'000.)

Country.	1938–39.			1950–51.		
	Imports from—(a)	Exports to—	Excess of Exports.	Imports from—	Exports to—	Excess of Exports.
United Kingdom ..	46,079	66,725	20,646	356,881	320,605	−36,276
Canada	8,806	1,994	— 6,812	16,957	17,212	255
India	3,272	1,965	— 1,307	35,424	21,981	−13,443
New Zealand	1,618	6,682	5,064	3,102	3,275	173
Other British Countries ..	5,415	7,812	2,397	78,472	83,269	4,797
Total, British Countries	65,190	85,178	19,988	490,836	446,342	−44,494
Belgium	1,120	5,547	4,427	11,349	48,245	36,896
China	526	3,023	2,497	2,657	850	— 1,807
France	1,172	9,379	8,207	16,414	89,820	73,406
Germany	4,710	2,652	— 2,058	14,726	27,738	13,012
Indonesia, Republic of ..	8,117	1,373	— 6,744	21,788	3,243	−18,545
Italy	781	1,211	430	16,655	49,010	32,355
Japan	4,666	4,866	200	15,595	61,550	45,955
United States of America ..	16,696	3,614	— 13,082	60,878	148,830	87,952
Other Foreign Countries ..	7,686	5,700	— 1,986	90,144	106,168	16,024
Total, Foreign Countries	45,474	37,365	— 8,109	250,206*b*	535,454	285,218

(*a*) Excludes outside packages. (*b*) Excludes £338,000, country of origin not stated.

NOTE.—Minus sign (—) indicates excess of imports.

The balance of trade with single countries is of little significance, since in the first place there is still a fair proportion of Australian produce distributed through the United Kingdom either immediately, by transhipment or re-sale, or ultimately, by incorporation in manufactures. Further, in very many cases international balances are equated directly by services or indirectly by exchange of goods between several countries. (*See also* § 17 below.)

§ 7. Australian Oversea Trade with the United Kingdom.

1. **Imports.**—The following table shows, according to statistical classes, the value of imports into Australia of United Kingdom origin during the years 1946–47 to 1950–51 compared with the year 1938–39.

IMPORTS INTO AUSTRALIA OF UNITED KINGDOM ORIGIN : CLASSES.

(£.)

Class.	1938–39.	1946–47.	1947–48.	1948–49.	1949–50.	1950–51.
I. Animal foodstuffs, etc. ..	342,323	384,544	698,009	762,307	891,381	1,365,547
II. Vegetable foodstuffs; non-alcoholic beverages, etc. ..	214.262	101,574	760,200	1,130,000	1,399,828	1,771,684
III. Alcoholic liquors, etc. ..	699,816	330,444	573,252	677,266	973,020	1,126,592
IV. Tobacco, etc.	21,923	337,773	1,907,213	3,808,135	4,949,269	5,458,071
V. Live animals	54,622	170,505	172,990	311,498	280,448	285,266
VI. Animal substances, etc. ..	41.343	163.959	169.975	90.634	146,877	219,817
VII. Vegetable substances, etc. ..	240,738	637,911	892,484	1,411,371	1,361,073	2,718,304
VIII. Apparel, textiles, etc. ..	11,438,102	24,717,489	44,122,544	70,778,109	65,785,376	83,705,504
IX. Oils, fats and waxes ..	153,714	171,611	202,686	365,696	432,702	645,175
X. Paints and varnishes ..	436,669	564,664	894,846	944,299	933,964	1,057,664
XI. Stones and minerals, etc. ..	317,568	85,468	139,749	692,550	569,122	234,311
XII. Metals, metal manufactures, and machinery	20,801,191	28,414,130	52,680,953	92,402,903	158,056,464	189,771.334
XIII. Rubber and leather, etc. ..	282,345	925,484	1,634,747	3,008,682	5,965,381	6,726,409
XIV. Wood and wicker, etc. ..	97,047	172,998	239,728	353,986	436,465	487,166
XV. Earthenware, etc.	1,078,691	2,796,541	4,938,886	5,992,800	6,803,448	7,310,736
XVI. Paper and stationery ..	3,358,030	4,516,856	8,087,860	8,185,359	9,893,401	14,617,059
XVII. Jewellery, etc.	313,843	1,827,176	2,478,602	2,836,687	3,469,357	4,329,024
XVIII. Optical, surgical, and scientific instruments	596,654	1,453,695	2,871,806	4,395,674	4,117,408	4,975,574
XIX. Drugs, chemicals, etc. ..	2,608,761	4,380,792	5,086,256	5,884,841	5,970,494	9,846,029
XX. Miscellaneous (*a*)	2,980,342	2,417,822	3,683,968	5,278,977	6,311,694	20,229,447
XXI. Gold and silver; and bronze specie	16,310	1,753	1,678	1,080	802	595
Total	46,094,294	74,573,189	132,238,435	209,312,854	278,747,974	356,881,308

(*a*) Includes Arms, Ammunition and Explosives.

2. **Exports.**—In the following table the exports from Australia to the United Kingdom are shown in classes according to the same classification as for imports.

EXPORTS FROM AUSTRALIA TO THE UNITED KINGDOM : CLASSES.

(£.)

Class.	1938–39.	1946–47.	1947–48.	1948–49.	1949–50.	1950–51.
I. Animal foodstuffs, etc. ..	24,483,853	33.372,177	43,679,309	51,897,522	57,371,732	41,423,986
II. Vegetable foodstuffs; non-alcoholic beverages, etc. ..	14,369,098	9,701,218	33,948,477	64.768,808	33,161,514	46,076,937
III. Alcoholic liquors, etc. ..	906,358	865,552	1,312,783	840,101	231,953	313,412
IV. Tobacco, etc.	1,196	256	738	2,551	376	931
V. Live animals	1,754	135	1,640	3,290	2,642	12,395
VI. Animal substances, etc. ..	19,475,233	28.415.652	54,053,984	83,348,459	118,461,169	199,778,565
VII. Vegetable substances, etc. ..	109,770	488,173	268,596	115,347	74,440	232,377
VIII. Apparel, textiles, etc. ..	40,909	1,264,248	662,906	311,015	598,533	505,853
IX. Oils, fats and waxes ..	179,408	121,961	365,185	1,071,908	1,652,176	882,413
X. Paints and varnishes ..	3,412	15,040	26,149	886	3,938	17,856
XI. Stones and minerals, etc. ..	846.994	993,044	1,506.326	2,008,316	2,508,252	4.600,948
XII. Metals, metal manufactures, and machinery	5,291,304	11,431,204	13,058,551	21,382,996	17,920,718	20,086,788
XIII. Rubber and leather, etc. ..	422,548	692.353	793,708	600,299	569,818	968,085
XIV. Wood and wicker, etc. ..	206,537	271,541	424,367	444,381	672,524	392,408
XV. Earthenware, etc.	3,679	3,328	9,354	17,592	41,047	33,549
XVI. Paper and stationery ..	32.464	94,917	66.263	81,819	103,606	160,795
XVII. Jewellery, etc.	31,626	11,785	14,465	21,864	28,856	30,407
XVIII. Optical, surgical, and scientific instruments	16,096	31,874	54,275	99,754	192,490	125,554
XIX. Drugs, chemicals, etc. ..	108,562	319,806	292,044	216,291	320.356	706,175
XX. Miscellaneous	166,862	1,487,982	480,105	1,275,315	1,639,793	1,068,725
XXI. Gold and silver; and bronze specie	2,018,368	51,166	4,914,233	1,287,178	1,970,190	2,587,146
Total	68,716.031	89,633,412	155,933.458	229,795,692	237,526,123	320,605,305

3. **Imports of Principal Articles.**—The following table shows the value of the principal articles imported into Australia from the United Kingdom during the years 1946–47 to 1950–51 compared with the year 1938–39. The articles are shown in the order in which they appear in the detailed classification.

PRINCIPAL COMMODITIES IMPORTED OF UNITED KINGDOM ORIGIN: AUSTRALIA.

(£.)

Article.	1938–39.	1946–47.	1947–48.	1948–49.	1949–50.	1950–51.
Whisky	629,873	313,074	494,814	423,389	607,731	757,952
Cigarettes	16,595	214,759	1,675,421	3,454,920	4,527,662	5,113,286
Plastic material	..	498,974	622,507	1,063,275	1,155,315	2,304,656
Towels and towelling	329,184	422,823	974,788	2,186,229	2,000,383	1,372,814
Apparel	797,326	2,577,678	5,330,050	9,178,478	8,060,911	9,972,474
Carpets and carpeting	1,065,247	1,203,843	3,641,212	5,363,276	7,449,528	10,751,389
Floorcloths and linoleums	538,807	542,798	1,837,124	2,780,859	2,538,629	2,965,226
Piece goods—						
Canvas and duck	476,961	565,261	604,234	697,463	872,629	1,025,442
Cotton and linen	4,173,661	6,434,230	9,088,475	18,611,320	17,086,236	22,370,432
Silk and rayon	968,216	7,059,620	11,592,229	13,416,228	10,618,131	12,725,509
Woollen or containing wool	251,830	535,603	1,266,441	4,071,802	4,793,018	3,698,405
All other piece goods	908,423	769,189	1,678,139	2,929,163	2,864,324	4,096,931
Sewing silks, cottons, etc.	535,294	676,641	945,560	1,673,250	1,522,267	1,781,071
Yarns—						
Cotton	417,322	1,141,992	2,119,234	3,222,868	1,866,791	4 045,696
Rayon	231,805	1,376,998	2,118,608	2,921,994	2,598,293	4,684,882
Woollen	53,631	6,327	77,894	387,794	415,016	264,994
Other	48,596	65,952	219,054	334,757	187,511	441,048
Electrical machinery and appliances	2,999,300	3,353,955	6,076,375	11,044,488	15,059,557	19,713,244
Electrical cable and wire, covered	1,269,509	565,518	1,676,688	3,908,520	5,743,278	4,465,496
Agricultural machinery	45,544	140,979	659,389	669,716	1,205,060	2,017,679
Metal-working machinery	860,589	1,037,544	2,147,304	2,289,473	2,688,446	3,085,888
Motive-power machinery	1,024,957	3,056,861	3,993,627	8,156,972	15,074,864	22,443,586
Machines and machinery, other	2,795,497	5,184,540	9,235,298	15,448,303	19,901,530	26,475,402
Iron and steel—						
Pipes and tubes	473,498	96,438	243,957	341,511	708,515	1,151,051
Plate and sheet	2,424,981	1,911,100	2,749,156	5,050,643	6,994,377	10,526,233
Other	513,040	333,270	458,069	1,302,563	4,572,526	7,487,574
Cutlery and platedware	519,054	1,446,413	2,069,117	1,491,100	1,744,269	2,189,765
Tools of trade	445,357	881,357	1,758,739	1,857,463	2,240,096	2,623,643
Motor cars, chassis, bodies, and parts	3,186,976	4,723,684	11,605,831	25,022,337	58,137,010	61,736,699
Vehicles, other	1,861,117	2,302,243	4,198,414	6,753,802	10,066,217	8,067,336
Rubber and rubber manufactures	200,306	809,037	1,280,532	2,649,919	5,449,978	6,057,727
Crockery	459,431	1,401,453	2,493,755	2,931,035	3,070,831	2,996,755
Glass and glassware	331,354	960,544	1,491,598	1,602,518	1,842,361	2,134,836
Paper, printing	939,577	320,974	863,910	1,464,917	3,068,337	5,571,141
Stationery and paper manufactures	1,611,107	2,918,763	4,684,388	4,961,000	4,998,539	5,695,389
Cinematograph films	64,911	62,065	113,279	224,706	224,640	240,617
Toys	41,380	307,218	515,829	727,406	1,230,481	1,889,846
Optical, surgical and scientific instruments	531,743	1,391,630	2,758,527	4,170,968	3,892,768	4,734,957
Drugs, chemicals, and fertilizers	2,608,761	4,380,792	5,086,250	5,884,841	5,970,494	9,846,029
Arms and explosives	1,086,882	604,657	874,176	1,440,985	1,087,066	1,454,774
Musical instruments, pianos, etc.	65,205	85,791	226,399	378,566	496,075	554,594
Prefabricated houses and buildings	..	..	..	24,695	1,436,425	5,861,500
All other articles	8,291,447	11,890,601	20,692,038	26,797,342	32,679,859	49,487,340
Total Imports	46,094,294	74,573,189	132,238,435	209,312,854	278,747,974	356,881,308 (a)

(a) Includes outside packages £8,118,699.

4. **Exports of Principal Articles of Australian Produce.**—(i) *Quantities.* The following table shows the quantities of the principal articles of Australian produce exported to the United Kingdom during the years 1946–47 to 1950–51 compared with the year 1938–39. The articles are shown in the order in which they appear in the detailed classification.

PRINCIPAL COMMODITIES EXPORTED TO THE UNITED KINGDOM : QUANTITIES, AUSTRALIA.

Article.		1938–39.	1946–47.	1947–48.	1948–49	1949–50.	1950–51.
Butter	centl.	2,170,515	1,166,400	1,703,202	1,622,522	1,562,245	968.505
Cheese	,,	347,991	410,437	391,723	484,503	402,482	317,415
Eggs in shell	doz.	10,069,570	16,385,676	13,354,405	18,112,045	20,192,785	11,015,622
Beef	centl.	2,477,128	1,524,022	2,120,260	1,514,838	1,369,229	1,134,084
Lamb	,,	1,557,485	1,110,651	1,006,368	803,294	1,153,258	335,457
Mutton	,,	253,074	453,870	138,245	232.358	638,947	44,702
Pork	,,	301,204	158,624	21,721	168,488	117,353	92,498
Meats, preserved in tins ..	,,	116,553	692,083	605,432	853,144	877,675	692,724
Milk and cream	,,	28,806	105,070	65,820	78,966	255,520	41,822
Fruits, dried	,,	1,173,664	555,055	729,356	523,401	250,641	484,854
,, fresh	,,	2,023,970	155,537	1,203,068	842,923	1,059,385	1,597,287
Barley	,,	1,027,052	218,609	1,093.171	1,984,618	1,765.731	2,222,662
Wheat	bus.	32,234,617	3	17,225,932	34,523,448	9,435,385	11,816,784
Flour	centl.	2,379,151	1,999,078	1,127,312	4,670.894	704,711	2,259,065
Sugar (cane)	ton	391.497	14,939	58,791	321,425	328,423	233,819
Wine	gal.	3,507,410	2,041,764	2,157,016	1,368,811	613,546	701,024
Wool (in terms of greasy wool)	centl.	4,125,467	3,220,389	4.375,182	4,823,272	5,304,441	3,701,017
Pearl-shell	cwt.	20,877	674	2,562	1,623	3,013	2,536
Tallow (unrefined).. ..	,,	167,695	3,527	7,202	77,286	220,228	143.896
Timber, undressed, including Logs (*a*)	sup. ft.	13,188,491	6,566,546	9,029,426	7,025,097	15,317,864	7,265,613
Soap	centl.	9.746	3.528	315	3,916	8,529	1,774

(*a*) Excludes undressed timber not measured in super. ft.

(ii) *Values.* The values of the principal articles of Australian produce exported to the United Kingdom during the years 1946–47 to 1950–51 compared with the year 1938–39 are shown in the table hereunder :—

PRINCIPAL COMMODITIES EXPORTED TO THE UNITED KINGDOM : VALUES, AUSTRALIA.

(£.)

Article.	1938–39.	1946–47.	1947–48.	1948–49.	1949–50.	1950–51.
Butter	12,127,260	10,961,846	18,998,468	20,667,180	21,155,046	14,495,143
Cheese	1,019,681	1,694,561	2,307,637	3,177,808	2,971,383	2,602,613
Eggs in shell	631,976	1,301,317	1,438,515	2,153,188	2,515,172	1,481,416
Meats	10,581,318	15,749,606	17,657,559	21,740,064	26,792,619	19,926,998
Milk and cream	88,116	355,669	239,996	399,540	1,360,117	161,948
Fruits, dried	2,045,646	1,331,754	1,764,969	1,334,705	739,734	2,293,586
,, fresh	1,400,613	258,176	2,261,953	1,579,826	1,816,317	3,783,823
,, preserved in liquid	1,041,385	1,774,797	1,996,066	2,622,704	1,697,395	2,252,966
Barley	278,026	306,136	2,164,659	2,198,773	2,042,010	2,819,761
Wheat	4,443,613	2	14,751,498	26,887,685	6,215,373	15,416,578
Flour	705,518	3,387,817	2,402,909	8,928,246	1,097,639	4,109,729
Sugar (cane)	3,685,761	367,947	1,773,324	10,284,454	10,596,574	8,855,023
Wine	896,659	788,635	1,136,208	681,764	206,187	299,654
Hides and skins	813,201	1,989,282	1,973,287	2,733.807	3,304,804	5,864,721
Wool	18,513,175	26,376,781	51,967,264	80,495,032	114,983,345	193,598,412
Pearl-shell	90,777	20,911	56,620	37,807	54,162	63,645
Tallow (unrefined)..	137,464	12,646	34,614	519,177	1,022,017	529,139
Lead bullion	..	2,050,659	2,685,057	5,064,805	4,123,639	4,466,023
Lead, pig	4,198,486	6,478,830	7,927,031	12,305,526	9,961,854	9,898,125
Zinc bars, etc.	281,454	1,385,999	1,504,186	3,113,152	2,775,684	4,602,204
Leather	320,322	670,463	750,204	595,010	554,001	956,918
Timber, undressed, including logs (*a*)	152,394	203,242	340,030	268,213	594,193	317,106
Soap	21,489	5,916	1,959	20,786	21,953	7,500
Gold	1.990,948	..	3,828,787	1,367	1,177	..
Silver	21,794	36,945	1,069,052	1,274,695	1,958,670	2,577,263
All other articles	2.906.840	11.411.742	14,055,381	19,834,560	17,664,153	17,715,237
Total Exports (Australian Produce)	68,393,916	88.921.679	155,087.233	228,919,874	236,225,218	319,095,531

(*a*) Excludes undressed timber not measured in super. ft.

5. **Proportion of Trade from United Kingdom and Competing Countries.**—Since 1908 permanent resident Commissioners appointed by the British Board of Trade have been located in Australia for the purpose of advising manufacturers and merchants in the United Kingdom with regard to Australian trade affairs. From 8th August, 1907, the Commonwealth Customs Tariffs have provided preferential rates of Customs Duties on certain goods the produce or manufacture of the United Kingdom with the object of assisting the British manufacturer to retain or improve his position in this market in relation to other countries. The main provisions in these Acts relating to preference are dealt with on previous pages in this Chapter.

In an investigation into the relative position occupied by the United Kingdom in the import trade of Australia, the comparison must, of course, be restricted to those classes of goods which are produced or manufactured in the United Kingdom. The imports into Australia include many commodities, such as tea, rice, raw coffee, unmanufactured tobacco, petroleum products, copra, timber, etc., which the United Kingdom could not supply. These items, in addition to others not available from that country, have, therefore, been omitted from the computation following.

The imports into Australia have been classified under nine headings, and the trade of the United Kingdom therein is compared with that of France, Germany, Japan, and the United States of America. These countries have been selected as the principal competitors in normal times with the United Kingdom for the trade of Australia under the specified headings. Totals for the years 1913, 1938–39, 1949–50 and 1950–51 are shown in the following table.

AUSTRALIAN IMPORTS OF PRODUCTS OF VARIOUS COUNTRIES : VALUE.

(£.)

Nature of Imports.	Year.	United Kingdom.	France.	Germany.	Japan.	United States of America.	All Countries.
Foodstuffs of animal origin	1913 ..	273,987	2,815	10,987	6,360	263,250	862,574
	1938–39	342,323	1,132	624	200,217	307,528	1,823,802
	1949–50	891,381	52,189	24,236	116	147,402	3,744,522
	1950–51	1,365,547	30,969	73,204	216	276,515	4,970,397
Spirituous and alcoholic liquors	1913 ..	1,117,301	312,550	130,543	1,537	2,553	1,772,345
	1938–39	699,816	66,852	4,925	179	1,345	820,762
	1949–50	973,020	102,914	782	2	991	1,169,286
	1950–51	1,126,592	186,848	7,453	11	1,656	1,463,567
Apparel, textiles, and manufactured fibres	1913 ..	11,153,851	874,705	1,558,587	433,221	567,535	18,145,113
	1938–39	11,438,102	468,604	574,233	2,901,392	321,213	20,241,952
	1949–50	65,785,376	1,954,927	103,858	1,016,368	1,533,506	99,761,220
	1950–51	83,705,504	3,304,837	565,554	3,161,661	2,348,133	138,668,670
Metals, metal manufactures, and machinery	1913 ..	12,656,487	197,644	2,166,366	6,969	3,474,797	19,723,785
	1938–39	20,801,191	60,881	1,652,322	101,029	7,850,415	35,652,840
	1949–50	158,056,464	5,278,427	5,205,396	5,353,785	31,842,243	227,343,500
	1950–51	189,771,334	8,354,867	10,503,634	11,122,533	36,497,365	289,832,968
Paper and stationery	1913 ..	1,628,836	19,960	242,547	9,699	367,420	2,853,186
	1938–39	3,358,030	58,792	361,085	100,831	424,732	7,051,557
	1949–50	9,893,401	183,340	19,115	317	722,616	18,882,949
	1950–51	14,617,059	239,679	531,914	79,217	821,487	30,594,790
Jewellery, timepieces, and fancy goods	1913 ..	474,468	80,160	240,003	17,573	125,802	1,312,745
	1938–39	313,843	35,715	107,068	199,848	139,058	1,632,030
	1949–50	3,469,357	861,749	177,359	573	42,654	6,514,440
	1950–51	4,329,024	594,375	447,608	617	28,069	8,913,379
Earthenware, cements, glass, etc.	1913 ..	591,742	36,630	412,483	19,563	57,239	1,425,093
	1938–39	1,078,691	19,357	233,161	208,600	102,437	2,122,650
	1949–50	6,803,448	82,499	9,432	122,682	228,520	9,074,347
	1950–51	7,310,736	201,368	43,088	315,922	431,264	11,120,179
Drugs, chemicals, and fertilizers	1913 ..	928,972	223,382	276,858	126,677	191,828	2,477,420
	1938–39	2,608,761	223,691	543,480	54,322	1,144,194	6,382,351
	1949–50	5,970,494	681,285	110,707	41,094	1,043,415	12,091,046
	1950–51	9,846,029	1,162,583	1,062,570	165,852	1,407,789	18,692,989
Rubber and leather and manufactures thereof, and substitutes therefor	1913 ..	441,634	62,517	315,873	626	394,870	1,562,810
	1938–39	282,345	5,676	54,006	43,565	130,228	1,926,142
	1949–50	5,965,381	74,730	52,128	529	581,602	11,259,439
	1950–51	6,726,409	255,700	40,483	9	430,605	30,448,092
Total, above-mentioned imports	1913 ..	29,267,278	1,810,363	5,354,247	622,225	5,445,294	50,135,071
	1938–39	40,923,102	940,700	3,620,904	3,899,983	10,421,150	77,654,086
	1949–50	257,808,322	9,272,060	5,703,013	6,535,466	36,142,940	389,840,749
	1950–51	318,798,234	14,331,226	13,275,508	14,846,038	42,242,883	534,705,031
Total imports (less bullion and specie)	1913 ..	37,270,765	2,022,993	6,397,948	864,944	9,927,795	72,905,553
	1938–39	46,077,981	1,172,072	4,709,581	4,666,238	16,697,927	110,582,986
	1949–50	278,747,172	10,644,550	6,583,657	6,999,011	52,238,898	536,124,083
	1950–51*a*	356,880,713	16,414,389	14,725,809	15,594,763	60,876,243	741,378,161

(*a*) Includes outside packages.

Stated as percentages the figures in the preceding table are shown below.

AUSTRALIAN IMPORTS OF PRODUCTS OF VARIOUS COUNTRIES: PROPORTIONS FROM EACH COUNTRY.

(Per Cent.)

Nature of Imports.	Year.	United Kingdom.	France.	Germany.	Japan.	United States of America.	All Countries.
Foodstuffs of animal origin	1913 ..	31.77	0.33	1.27	0.74	30.52	100.00
	1938–39	18.77	0.06	0.03	10.98	16.86	100.00
	1949–50	24.80	1.39	0.65	..	3.94	100.00
	1950–51	27.47	0.62	1.47	..	5.56	100.00
Spirituous and alcoholic liquors	1913 ..	63.04	17.64	7.37	0.09	0.14	100.00
	1938–39	85.26	8.15	0.60	0.02	0.16	100.00
	1949–50	83.21	8.80	0.07	..	0.08	100.00
	1950–51	76.98	12.77	0.51	..	0.11	100.00
Apparel, textiles, and manufactured fibres	1913 ..	61.48	4.82	8.59	2.39	3.13	100.00
	1938–39	56.51	2.32	2.84	14.33	1.59	100.00
	1949–50	65.94	1.96	0.10	1.02	1.54	100.00
	1950–51	66.36	2.38	0.41	2.28	1.69	100.00
Metals, metal manufactures, and machinery	1913 ..	64.17	1.00	10.98	0.04	17.62	100.00
	1938–39	58.34	0.17	4.63	0.54	22.02	100.00
	1949–50	69.52	2.32	2.29	2.35	14.00	100.00
	1950–51	65.49	2.88	3.62	3.84	12.60	100.00
Paper and stationery	1913 ..	57.09	0.70	8.50	0.34	12.88	100.00
	1938–39	47.62	0.83	5.12	1.43	6.02	100.00
	1949–50	52.39	0.97	0.10	..	3.83	100.00
	1950–51	47.78	0.78	1.74	0.26	2.69	100.00
Jewellery, timepieces, and fancy goods	1913 ..	36.14	6.11	18.28	1.34	9.58	100.00
	1938–39	19.23	2.19	12.07	12.25	8.52	100.00
	1949–50	53.26	13.23	2.72	0.01	0.65	100.00
	1950–51	48.57	6.67	5.02	0.01	0.31	100.00
Earthenware, cements, glass, etc.	1913 ..	41.52	2.57	28.94	1.37	4.02	100.00
	1938–39	50.82	0.91	10.98	9.83	4.83	100.00
	1949–50	74.97	0.91	0.10	1.35	2.52	100.00
	1950–51	65.74	1.81	0.39	2.84	3.88	100.00
Drugs, chemicals, and fertilizers	1913 ..	37.49	9.02	11.18	5.11	7.74	100.00
	1938–39	40.87	3.50	8.52	0.85	17.93	100.00
	1949–50	49.38	5.63	0.92	0.34	8.63	100.00
	1950–51	52.67	6.22	5.68	0.89	7.53	100.00
Rubber and leather and manufactures thereof, and substitutes therefor	1913 ..	28.26	4.00	20.21	0.04	25.27	100.00
	1938–39	14.66	0.29	2.80	2.26	6.76	100.00
	1949–50	52.98	0.66	0.46	..	5.17	100.00
	1950–51	22.09	0.84	0.13	..	1.41	100.00
Total, above-mentioned articles	1913 ..	58.38	3.61	10.68	1.24	10.86	100.00
	1938–39	52.69	1.21	4.66	5.02	13.42	100.00
	1949–50	66.13	2.38	1.46	1.68	9.27	100.00
	1950–51	59.63	2.68	2.48	2.78	7.90	100.00
Total imports (less bullion and specie)	1913 ..	52.37	2.84	8.99	1.22	13.95	100.00
	1938–39	41.67	1.06	4.26	4.22	15.10	100.00
	1949–50	53.07	2.03	1.25	1.33	9.94	100.00
	1950–51	48.14	2.21	1.99	2.08	8.21	100.00

The total value of the commodities included in the competitive classes increased from £50,135,071 in 1913 to £77,654,086 in 1938–39 and to £389,840,749 in 1949–50. In 1950–51 it had increased to £534,705,031. The principal classes of competitive imports are metals, metal manufactures and machinery (value £289,768,944 in 1950–51) and apparel, textiles and manufactured fibres (value £138,668,670 in 1950–51). The value of goods included in these two group represented 80.3 per cent. of the total value of competitive commodities during 1950–51.

In 1938–39 the United Kingdom supplied 52.69 per cent. of the total value of competitive goods. In 1913 the corresponding figure was 58.38 per cent. and in 1950–51 59.63 per cent.

The share of Japan in the competitive trade increased in proportion to other countries from 1.24 per cent. in 1913 to 5.02 per cent. in 1938–39. Owing to the effects of war it was reduced to 0.06 per cent. in 1946–47. In 1950–51 it was 2.78 per cent.

The proportion of the United States of America in the competitive trade improved from 10.86 per cent. in 1913 to 13.42 per cent. in 1938–39 and to 20.28 per cent. in 1947–48, but had fallen to 7.9 per cent. in 1950–51.

The proportion of France declined from 3.61 per cent. in 1913 to 1.21 per cent. in 1938–39 but in 1950–51 had risen to 2.68 per cent.

The proportion of the competitive imports supplied by Germany was 10.68 per cent. in 1913, and 4.66 per cent. in 1938–39. In consequence of the war, the proportion of imports from Germany fell to 0.52 per cent. during 1948–49 but has since risen and in 1950–51 was 2.78 per cent.

§ 8. Trade with Eastern Countries.

1. **Imports of Merchandise from Eastern Countries.**—The values of imports into Australia from Eastern countries during the year 1938–39 and the years 1946–47 to 1950–51 are shown in the following table. The principal commodities imported in 1950–51 according to countries of origin were :—Ceylon—Tea, £9,184,232 ; India—Bags and Sacks, £12,985,393, Cotton and Linen Piecegoods, £5,939,370, Hessians, £2,916,760, Tea, £3,723,003 ; Malaya—Crude Rubber, £17,580,811 ; Singapore—Crude Rubber, £2,053,753, Petroleum Spirit, £5,391,715, Solar and Residual Oil, £2,219,205 ; Indonesia—Crude Rubber, £1,326,361, Kerosene, £3,533,330, Petroleum Spirit, £9,510,016, Residual and Solar Oil, £4,735,910 ; Japan—Cotton and Linen Piecegoods, £2,346,516, Iron and Steel, £8,503,414.

IMPORTS OF MERCHANDISE INTO AUSTRALIA FROM EASTERN COUNTRIES.
(£'000.)

Country of Origin.	1938–39.	1946–47.	1947–48.	1948–49.	1949–50.	1950–51.
British Countries—						
Borneo	215	1,475	3,414	4,145	4,578	5,673
Ceylon	957	6,570	8,133	7,512	8,936	11,317
Hong Kong	41	121	252	647	700	1,915
India	3,272	17,444	26,698	25,862	27,664	35,424
Malaya, Federation of ..	1,029	3,140	3,862	4,028	4,926	20,647
Pakistan	..	..	..	102	1,228	7,290
Singapore	..	..	392	4,655	7,308	10,502
Foreign Countries—						
Burma	30	15	23	27	30	13
China	526	1,148	1,667	2,542	1,451	2,657
Chinese Dependencies—						
Formosa	..	1	..	..	..	..
Kwantung	..	..	..	..	..	..
Manchuria	17	..	..	..	5	14
French Dependencies—						
India (French)	1	18	1	..	..	..
Indo-China	1	18	2	14	51	51
Indonesia, Republic of ..	8,116	213	4,429	11,097	14,750	21,788
Japan	4,666	697	1,433	1,711	6,999	15,595
Korea	..	..	1	..	1	8
Philippines Republic ..	138	4	48	14	69	52
Portuguese Dependencies—						
India	..	..	..	..	..	..
Timor	..	3	..	..	..	79
Siam (Thailand)	3	16	20	27	83	103
Soviet Russia (Pacific Ports)	..	..	9	..	104	140
Total	19,012	30,883	50,384	62,383	78,883	(a)133,268

(a) Includes outside packages.

2. **Exports.**—(i) *Principal Articles.* The following table shows the value of exports of Australian and other produce from Australia to Eastern countries for the years 1938–39 and 1946–47 to 1950–51. The countries concerned in this trade are Borneo (British), Burma, Ceylon, Hong Kong, India, Federation of Malaya, Pakistan, Singapore, China and Chinese dependencies, French dependencies in India and Indo-China, Republic of Indonesia, Japan, Korea, Philippines Republic, Portuguese Possessions in India and Timor, Siam and Soviet Union Pacific Coast Ports.

TOTAL EXPORTS FROM AUSTRALIA TO EASTERN COUNTRIES.

(£'000.)

Article.	1938–39.	1946–47.	1947–48.	1948–49.	1949–50.	1950–51.
Biscuits	37	109	47	8	3	2
Butter	588	563	680	982	1,468	1,742
Cheese	44	474	227	484	428	341
Coal	126	..	..	..	..	..
Fruits—						
Fresh	166	847	923	864	901	882
Dried and preserved	43	319	203	301	255	333
Grain and pulse—						
Wheat	2,403	3,800	19,661	17,066	33,990	18,133
Flour	3,037	14,260	18,116	16,636	18,970	18,682
Other (prepared and unprepared)	70	2,605	1,798	4,932	2,710	4,542
Hay, chaff, and compressed fodder	16	53	33	34	63	65
Horses	86	136	169	86	113	91
Infants' and invalids' food	194	611	875	1,120	1,147	1,289
Iron ore	52	..	56	..	..	..
Iron and steel (scrap)	283	13	12	4	..	4
Jams and jellies	45	648	336	108	156	275
Lard and refined animal fats	26	362	62	23	41	578
Lead, pig	13	347	256	57	533	1,399
Leather	134	831	358	730	955	1,202
Meats—						
Bacon and hams	95	220	309	333	395	436
Other meats	274	2,404	1,303	1,339	1,717	2,389
Milk and cream	437	3,051	2,784	4,060	3,642	4,454
Pearl-shell and trochus-shell	43	10	5	37	18	126
Sandalwood	42	110	33	36	..	80
Skins, hoofs, horns, bones, and sinews	176	77	12	109	212	1,211
Tallow (unrefined)	156	333	385	413	306	106
Timber (undressed)	63	151	152	34	79	21
Wool	4,181	3,580	3,937	8,104	14,535	55,549
Zinc—						
Bars, blocks, ingots, etc.	597	1,257	398	14	497	499
Concentrates	15	..	..	..	..	..
Other merchandise	1,393	(a) 23,013	13,901	10,833	8,358	12,850
Total merchandise	14,835	60,184	67,031	68,747	91,492	127,281
Specie, and gold and silver bullion	934	1	..	145	..	1
Total Exports	15,769	60,185	67,031	68,892	91,492	127,282

(a) Includes yarns, textiles and apparel, £4,502,536, and metals and machinery, £5,872,565.

(ii) *Destination of Exports of Merchandise.* The next table shows the destination of merchandise exported to Eastern countries during the year 1938–39 and the years 1946–47 to 1950–51.

EXPORTS OF MERCHANDISE FROM AUSTRALIA TO EASTERN COUNTRIES.

(£'000.)

Country of Destination.	1938–39.	1946–47.	1947–48.	1948–49.	1949–50.	1950–51.
British Countries—						
Borneo	13	575	390	362	411	661
Ceylon	423	7,116	10,213	9,341	6,070	8,950
Hong Kong	475	6,622	6,365	3,918	6,848	5,968
India	1,942	13,029	26,689	25,985	37,034	21,981
Malaya, Federation of	1,911	18,353	7,785	6,299	5,566	8,214
Pakistan	..	..	..	2,273	362	950
Singapore	..	..	6,481	7,372	8,071	10,875
Foreign Countries—						
Burma	59	1,241	1,992	796	456	893
China	3,023	6,067	2,757	1,439	502	850
Chinese Dependencies—						
Kwantung	61	..	..	..	..	..
Manchuria	2	..	..	..	..	..
French Dependencies—						
India (French)	1	..	..	11	9	32
Indo-China	55	407	685	288	45	63
Indonesia, Republic of	1,373	486	132	1,140	507	3,243
Japan	4,866	5,594	2,506	7,389	23,978	61,550
Korea	12	..	377	116	8	42
Philippines Republic	499	454	256	514	654	478
Portuguese Dependencies—						
India	..	96	82	221	223	251
Timor	..	35	76	16	18	24
Siam (Thailand)	120	110	245	591	730	877
Soviet Russia (Pacific Ports)	..	..	..	676	..	1,380
Total	14,835	60,185	67,031	68,747	91,492	127,282

The balance of trade with Eastern countries, which can be ascertained by comparison with the previous table, shows an excess of imports into Australia during the years 1938–39 and 1950–51, and an excess of exports during the years 1946–47 to 1949–50.

§ 9. Classified Summary of Australian Oversea Trade.

1. Imports.—The following table shows, according to statistical classes, the value of imports into Australia during each of the years 1946–47 to 1950–51 compared with the year 1938–39.

IMPORTS INTO AUSTRALIA : CLASSES.

(£.)

Class.	1938–39.	1946–47.	1947–48.	1948–49.	1949–50.	1950–51.
I. Animal foodstuffs, etc. ..	1,823,803	1,501,780	3,696,165	3,961,370	3,744,522	4,970,397
II. Vegetable foodstuffs; non-alcoholic beverages, etc. ..	4,511,869	9,472,176	16,520,830	13,932,667	20,693,683	24,795,552
III. Alcoholic liquors, etc. ..	820,762	381,101	762,354	984,863	1,169,286	1,463,567
IV. Tobacco, etc.	2,124,831	4,187,720	7,721,388	9,182,959	12,394,839	16,436,773
V. Live animals	208,402	442,803	384,879	486,888	491,629	463,951
VI. Animal substances, etc. ..	2,214,204	3,439,702	3,439,543	2,926,404	2,816,963	3,789,260
VII. Vegetable substances, etc. ..	2,960,511	9,188,319	11,470,141	13,150,323	13,775,717	24,907,839
VIII. Apparel, textiles, etc. ..	20,241,952	48,921,043	96,065,101	109,197,688	99,761,220	138,668,670
IX. Oils, fats and waxes ..	9,915,436	20,662,000	34,756,532	43,179,355	52,382,412	69,825,442
X. Paints and varnishes ..	662,049	1,074,681	1,638,485	1,909,113	1,811,611	2,453,075
XI. Stones and minerals, etc. ..	1,027,031	2,421,578	2,837,113	3,637,527	6,572,785	8,969,589
XII. Metals, metal manufactures, and machinery	35,652,840	52,612,048	85,378,948	128,035,543	227,343,500	289,832,968
XIII. Rubber and leather, etc. ..	1,926,142	5,584,178	5,352,188	6,695,123	11,259,439	30,448,092
XIV. Wood and wicker, etc. ..	2,371,178	3,792,014	4,876,815	8,136,704	8,821,897	15,794,630
XV. Earthenware, etc.	2,122,650	3,644,596	7,250,489	7,841,593	9,074,347	11,120,179
XVI. Paper and stationery ..	7,051,557	13,409,947	23,383,243	21,060,945	18,882,949	30,594,790
XVII. Jewellery, etc.	1,632,030	3,052,169	4,130,770	4,914,539	6,514,440	8,913,379
XVIII. Optical, surgical, and scientific instruments ..	1,824,665	2,924,665	4,410,447	5,848,521	6,089,266	7,552,141
XIX. Drugs, chemicals, etc. ..	6,382,351	9,577,915	11,035,975	11,877,918	12,091,046	18,692,989
XX. Miscellaneous (a)	7,742,730	12,051,961	12,973,848	17,095,687	20,432,532	31,684,878
XXI. Gold and silver; and bronze specie	3,537,036	1,142,427	1,660,874	1,138,410	1,944,760	2,492,426
Total	116,754,029	209,484,823	339,746,128	425,194,200	538,068,843	743,870,587

(a) Includes Arms, Ammunition and Explosives.

2. Exports.—In the following table the exports from Australia are shown according to the same classification as for imports, distinguishing (A) Australian produce; (B) Other produce (re-exports); and (C) Total exports.

EXPORTS FROM AUSTRALIA : CLASSES.

(£.)

Class.	1938–39.	1946–47.	1947–48.	1948–49.	1949–50.	1950–51.
	A. AUSTRALIAN PRODUCE.					
I. Animal foodstuffs, etc. ..	27,222,912	47,362,238	57,695,872	73,233,176	79,858,521	67,524,563
II. Vegetable foodstuffs; non-alcoholic beverages, etc. ..	25,532,970	52,328,828	123,993,668	152,567,621	137,583,016	163,202,205
III. Alcoholic liquors, etc. ..	1,158,424	2,074,179	2,063,703	1,535,608	940,077	1,248,485
IV. Tobacco, etc.	237,948	216,762	157,787	141,429	188,941	208,267
V. Live animals	197,081	369,451	491,158	444,111	490,260	628,846
VI. Animal substances, etc. ..	47,192,519	141,898,366	161,732,920	244,501,681	329,280,349	661,726,269
VII. Vegetable substances, etc. ..	297,864	1,178,407	1,028,562	908,794	1,039,110	1,486,301
VIII. Apparel, textiles, etc. ..	446,032	10,158,320	4,786,772	3,530,709	2,701,921	3,094,472
IX. Oils, fats and waxes ..	611,633	928,557	1,389,143	2,337,034	2,970,217	3,578,053
X. Paints and varnishes ..	173,399	370,347	607,944	463,870	504,835	779,419
XI. Stones and minerals, etc. ..	2,667,077	3,420,675	5,149,128	6,424,902	6,278,511	12,006,015
XII. Metals, metal manufactures and machinery	9,510,802	27,864,190	28,385,141	37,190,385	30,167,829	38,221,707
XIII. Rubber and leather, etc. ..	745,190	3,032,764	1,910,135	1,802,304	2,118,916	2,925,700
XIV. Wood and wicker, etc. ..	1,066,288	1,221,617	1,673,343	1,962,946	2,176,735	1,656,888
XV. Earthenware, etc.	209,637	654,439	495,772	374,088	538,915	729,965
XVI. Paper and stationery ..	364,928	1,008,225	753,103	822,441	885,191	1,084,726
XVII. Jewellery, etc.	105,803	524,201	364,451	312,766	285,953	517,178
XVIII. Optical, surgical, and scientific instruments ..	150,709	582,553	700,998	743,332	816,938	829,540
XIX. Drugs, chemicals, etc. ..	717,667	4,484,779	3,143,487	2,786,900	2,887,047	5,052,543
XX. Miscellaneous (a)	915,711	4,695,560	3,251,744	4,088,833	4,728,338	6,431,463
XXI. Gold and silver; and bronze specie	15,951,167	79,108	4,940,854	1,396,569	2,020,122	2,681,808
Total	135,475,761	304,453,566	404,715,685	537,569,505	608,461,748	975,614,413

(a) Includes Arms, Ammunition and Explosives.

EXPORTS FROM AUSTRALIA : CLASSES—*continued.*

(£.)

B. OTHER PRODUCE : RE-EXPORTS.

Class.	1938–39.	1946–47.	1947–48.	1948–49.	1949–50.	1950–51.
I. Animal foodstuffs, etc. ..	28,537	224,168	94,204	111,566	24,570	27,782
II. Vegetable foodstuffs; non-alcoholic beverages, etc. ..	66,886	374,356	188,884	248,275	362,760	384,179
III. Alcoholic liquors, etc. ..	42,820	30,103	21,948	32,621	31,576	34,893
IV. Tobacco, etc.	112,997	8,073	64,308	167,394	119,190	42,927
V. Live animals	19,687	5,825	11,078	10,690	28,972	11,044
VI. Animal substances, etc. ..	136,279	84,061	50,044	25,948	36,897	245,796
VII. Vegetable substances, etc. ..	9,092	23,684	66,826	58,695	36,658	42,249
VIII. Apparel, textiles, etc. ..	222,819	493,399	2,084,709	321,175	424,939	612,762
IX. Oils, fats and waxes ..	101,711	671,038	673,423	465,552	343,066	525,682
X. Paints and varnishes ..	4,853	8,814	9,006	3,063	4,842	3,649
XI. Stones and minerals, etc. ..	2,443	26,930	51,637	16,989	11,030	22,049
XII. Metals, metal manufactures, and machinery	547,549	1,310,224	1,170,946	1,658,488	2,043,636	2,060,743
XIII. Rubber and leather, etc. ..	10,873	126,246	51,141	9,640	27,681	22,407
XIV. Wood and wicker, etc. ..	42,987	14,281	56,833	50,120	51,338	49,665
XV. Earthenware, etc.	9,428	27,123	20,487	20,393	11,158	21,931
XVI. Paper and stationery ..	128,388	115,890	96,710	137,718	99,274	64,264
XVII. Jewellery, etc.	74,188	33,465	27,136	82,740	96,861	78,716
XVIII. Optical, surgical, and scientific instruments ..	234,004	99,674	165,027	198,279	313,341	317,104
XIX. Drugs, chemicals, etc. ..	48,518	179,646	128,155	137,674	167,891	142,251
XX. Miscellaneous	164,647	677,371	181,488	1,173,063	975,750	1,453,327
XXI. Gold and silver; and bronze specie	3,011,845	40,695	24,654	173,120	23,441	18,354
Total	5,020,551	4,575,066	5,238,644	5,103,203	5,234,871	6,181,774

C. TOTAL EXPORTS : AUSTRALIAN PRODUCE AND RE-EXPORTS.

Class.	1938–39.	1946–47.	1947–48.	1948–49.	1949–50.	1950–51.
I. Animal foodstuffs, etc. ..	27,251,449	47,586,406	57,790,076	73,344,742	79,883,091	67,552,345
II. Vegetable foodstuffs; non-alcoholic beverages, etc. ..	25,599,856	52,703,184	124,182,552	152,815,896	137,945,776	163,586,384
III. Alcoholic liquors, etc. ..	1,201,244	2,104,282	2,085,651	1,568,229	971,653	1,283,378
IV. Tobacco, etc.	350,945	224,835	222,095	308,823	308,131	251,194
V. Live animals	216,768	375,276	502,236	454,801	519,232	639,890
VI. Animal substances, etc. ..	47,328,798	141,982,427	161,782,964	244,527,629	329,317,246	661,972,065
VII. Vegetable substances, etc. ..	306,956	1,202,091	1,095,388	967,486	1,075,774	1,528,550
VIII. Apparel, textiles, etc. ..	668,851	10,651,719	6,871,481	3,851,884	3,126,860	3,707,234
IX. Oils, fats and waxes ..	713,344	1,599,595	2,062,506	2,802,586	3,313,283	4,103,735
X. Paints and varnishes ..	178,252	379,161	616,950	466,933	509,677	783,068
XI. Stones and minerals, etc. .	2,669,520	3,447,605	5,200,765	6,441,891	6,289,541	12,028,064
XII. Metals, metal manufactures and machinery	10,058,351	29,174,414	29,556,087	38,848,873	32,211,465	40,282,450
XIII. Rubber and leather, etc. ..	756,063	3,159,010	1,061,276	1,811,044	2,146,597	2,948,107
XIV. Wood and wicker, etc. ..	1,109,275	1,235,898	1,730,176	2,013,066	2,228,073	1,706,553
XV. Earthenware, etc.	219,065	681,562	516,259	394,481	550,073	751,896
XVI. Paper and stationery ..	493,316	1,124,115	849,813	960,150	984,465	1,148,990
XVII. Jewellery, etc.	179,991	557,666	391,587	395,506	382,814	595,894
XVIII. Optical, surgical, and scientific instruments ..	384,713	682,227	866,025	941,611	1,130,279	1,146,644
XIX. Drugs, chemicals, etc. ..	766,185	4,664,425	3,271,642	2,924,586	3,054,938	5,194,794
XX. Miscellaneous (*a*)	1,080,358	5,372,931	3,433,232	5,261,896	5,704,088	7,884,790
XXI. Gold and silver; and bronze specie	18,963,012	119,803	4,965,508	1,569,689	2,043,563	2,700,162
Total	140,496,312	309,028,632	409,954,329	542,672,708	613,696,619	981,796,187

(*a*) Includes Arms, Ammunition and Explosives.

3. **Imports of Principal Articles.**—The next table shows the quantity, where available, and the value of the principal articles imported into Australia during the years 1946–47 to 1950–51 compared with the year 1938–39. The articles are shown in the order in which they appear in the detailed classification.

PRINCIPAL COMMODITIES IMPORTED : AUSTRALIA.

Article.		1938–39.	1946–47.	1947–48.	1948–49.	1949–50.	1950–51.
Fish, preserved in tins	lb.	28,902,983	8,379,009	20,572,917	19,563,423	17,474,837	22,929,407
	£	1,078,755	644,326	2,298,253	2,445,025	2,092,931	2,944,113
Cocoa beans	lb.	4,048,865	17,673,190	26,540,589	18,405,631	29,165,829	13,222,680
	£	138,464	817,382	2,428,435	1,894,714	2,449,272	1,850,885
Cocoa butter ..	lb.	3,740,180	520,656	2,646,335	2,495,624	6,640,584	6,354,407
	£	133,429	63,499	659,529	730,552	1,451,925	1,951,972
Coffee and chicory ..	lb.	4,566,633	9,202,512	5,921,131	7,400,938	8,404,396	6,061,792
	£	105,936	406,381	368,180	501,945	964,618	1,088,477
Edible nuts	lb.	17,835,355	6,761,870	10,152,646	9,836,204	14,487,120	21,112,000
	£	291,336	461,121	924,092	771,737	1,137,807	1,887,126
Tea	lb.	49,530,941	52,830,507	54,522,049	42,570,780	54,733,541	61,235,742
	£	2,830,487	6,397,846	10,189,590	8,127,721	11,828,272	14,178,420
Whisky	pf.gal.	523,346	174,972	286,230	220,216	334,587	416,315
	£	631,032	314,380	496,420	429,928	622,275	775,186
Tobacco and preparations thereof	£	2,124,831	4,187,720	7,721,388	9,182,959	12,394,839	16,436,773
Copra	cwt.	484,181	181,238	470,135	583,622	652,548	474,146
	£	199,587	230,826	788,828	1,399,223	1,636,244	1,452,288
Fibres	£	1,023,441	4,359,533	5,441,719	6,599,405	6,653,269	15,790,716
Hides and skins	£	793,067	1,713,257	1,388,266	993,915	887,222	2,109,103
Wool	lb.	16,591,619	5,314,918	10,654,156	6,476,526	5,960,604	3,005,916
	£	767,132	440,755	895,490	822,632	1,032,295	1,200,920
Seeds	£	587,874	1,581,412	1,345,008	1,920,411	1,901,021	3,013,468
Plastic materials ..	cwt.	..	68,669	116,788	79,859	102,125	104,749
	£	..	954,381	1,656,929	1,527,847	1,809,901	1,519,735
Towels and towelling	£	406,293	445,368	1,137,662	2,482,696	2,206,007	1,451,204
Socks and stockings	£	49,599	20,562	693,580	2,644,120	1,827,748	1,503,102
Gloves	£	420,050	297,336	743,461	633,122	625,401	990,493
Hats and caps	£	204,541	312,317	447,591	558,551	520,798	912,658
Men's and boys' outer clothing ..	£	140,076	121,361	558,211	1,207,299	1,146,564	1,664,736
Blouses, skirts, costumes ..	£	96,046	182,505	350,666	702,136	1,155,345	1,387,239
Trimmings and ornaments ..	£	440,035	1,603,604	2,715,093	2,239,336	2,542,628	3,785,004
Other apparel and attire ..	£	1,011,703	1,117,988	2,253,553	4,415,834	4,868,490	6,880,723
Carpets and carpeting ..	£	1,253,690	2,055,521	4,994,897	5,519,016	7,424,512	11,111,637
Floorcloths and linoleums ..	£	641,129	644,927	2,017,518	2,786,384	2,502,778	3,274,866
Piece goods—							
Canvas and duck	£	649,330	955,299	1,100,261	1,348,780	1,313,210	2,291,920
Cotton and linen	£	5,501,674	12,364,467	27,010,288	30,960,983	26,390,842	39,764,817
Silk and rayon	£	2,991,495	13,253,212	20,186,008	17,045,686	14,607,331	18,276,507
Woollen or containing wool ..	£	321,779	565,617	1,346,979	4,150,696	4,900,006	3,999,268
All other piece goods ..	£	1,799,304	2,813,872	5,048,539	5,387,212	5,265,305	11,514,172
Sewing silks, cottons, etc. ..	£	573,179	683,906	1,155,615	2,324,565	1,617,976	1,877,275
Bags and sacks	£	1,720,965	5,785,451	12,619,995	12,539,246	13,006,133	13,015,571
Yarns—							
Rayon	£	609,134	1,653,494	4,327,077	5,232,271	3,608,092	7,583,938
Cotton	£	449,534	1,496,872	4,015,432	4,120,000	1,928,188	4,521,971
Woollen	£	55,192	7,075	80,436	472,072	476,957	750,721
Other	£	71,546	129,078	271,779	366,614	260,107	149,482
Oils, in bulk—							
Kerosene	gal.	54,714,472	84,112,406	114,409,936	111,407,858	115,197,513	124,623,350
	£	753,424	1,835,359	3,622,616	4,051,276	4,539,878	5,921,950
Linseed oil ..	gal.	188,629	86,392	1,411,625	2,081,703	1,498,572	2,104,712
	£	23,087	73,731	1,376,487	1,838,496	989,602	1,461,500
Lubricating (mineral)	gal.	15,519,442	26,375,543	26,259,104	30,942,390	37,515,084	29,797,188
	£	890,181	2,613,408	3,034,416	3,722,279	4,610,745	4,368,152
Petroleum, including crude	gal.	399,517,906	419,984,493	486,345,051	560,424,819	645,103,493	783,378,962
	£	6,450,724	10,036,789	16,340,640	21,272,764	28,653,919	39,422,727
Residual and solar ..	gal.	130,288,368	232,909,681	290,044,210	300,649,416	441,145,202	471,547,554
	£	1,060,969	4,490,816	7,305,094	10,090,468	11,287,213	14,583,718
Dry colours	cwt.	149,840	260,950	343,279	403,983	413,131	133,587
	£	347,377	980,967	1,457,421	1,737,506	1,643,731	638,846
Coal	ton	86,970	1,226	3,974	215,253	493,805	597,866
	£	119,041	4,443	16,282	863,925	1,708,186	1,865,737
Sulphur	cwt.	2,302,004	2,194,851	2,335,048	2,297,783	3,558,854	3,318,686
	£	559,982	689,159	599,487	818,818	2,499,695	3,515,936
Iron and steel—							
Pipes and tubes	£	514,304	73,952	171,742	320,559	1,451,794	3,050,262
Plate and sheet	£	2,980,282	4,893,355	6,303,506	8,543,753	14,922,209	30,016,848
Other	£	50,471	430,480	718,739	1,534,560	9,503,236	12,341,981
Copper	cwt.	22,115	19,459	196,187	302,021	486,913	708,304
	£	125,041	182,859	1,581,330	2,514,033	4,055,439	7,924,776
Cutlery and platedware ..	£	597,915	1,494,595	2,136,332	1,528,525	1,787,141	2,339,073
Tools of trade	£	971,730	1,079,110	2,361,165	2,294,569	3,017,586	3,541,457
Motor cars, chassis, bodies, and parts	£	8,577,193	13,756,669	20,749,580	34,306,470	73,135,786	74,159,936
Wire and manufactures ..	£	272,194	718,466	1,213,863	2,104,969	6,831,368	8,869,594
Electrical machinery and appliances	£	4,193,781	4,891,127	8,494,926	13,222,020	18,707,826	23,271,968
Electrical cable and wire, covered	cwt.	258,064	60,507	161,442	296,824	434,106	343,910
	£	1,407,230	603,138	1,813,388	3,984,836	5,752,103	4,557,083
Agricultural machinery ..	£	236,526	311,199	877,756	802,540	1,582,674	2,421,386
Metal-working machinery ..	£	1,508,118	1,774,855	4,252,510	3,315,959	4,016,409	5,257,374
Motive-power machinery ..	£	2,844,624	6,183,318	8,507,276	14,680,267	27,264,743	38,153,707
Other machines and machinery	£	5,398,921	8,396,699	14,621,672	22,036,616	32,604,518	43,045,566
Rubber and rubber manufactures	£	1,761,717	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

PRINCIPAL COMMODITIES IMPORTED; AUSTRALIA—*continued.*

Article.		1938–39.	1946–47.	1947–48.	1948–49.	1949–50.	1950–51.
Timber, undressed, including logs (*a*)	sup. ft.	348,098,462	121,381,971	134,410,267	215,843,249	210,571,507	313,849,634
	£	1,688,325	3,055,682	3,576,206	5,407,346	5,466,552	10,123,838
Crockery	£	637,461	1,449,547	2,618,787	3,018,288	3,116,752	3,073,887
Glass and glassware	£	912,536	1,429,075	3,049,646	2,471,704	3,082,958	4,015,111
Paper, printing	£	3,089,780	5,112,149	7,197,214	6,623,518	7,220,245	9,801,537
Pulp for paper-making	ton	37,704	37,323	52,041	53,693	33,819	41,911
	£	366,564	979,498	2,091,462	2,523,118	1,255,700	2,374,966
Stationery and paper manufactures	£	2,175,837	3,748,458	5,254,387	4,988,192	5,571,600	6,314,802
Jewellery	£	383,088	748,081	1,199,661	1,413,902	1,532,058	2,320,747
Toys	£	212,656	350,633	563,409	764,818	1,278,096	2,063,420
Timepieces	£	566,948	795,503	1,264,447	1,453,159	2,258,045	2,563,318
Cinematograph films ..	lin. ft.	73,859,662	81,666,820	65,821,810	107,498,516	109,892,369	90,062,309
	£	644,618	644,728	744,277	1,034,989	1,052,944	1,076,434
Surgical and dental appliances ..	£	421,007	929,235	1,215,125	1,179,987	1,390,051	2,229,872
Drugs, chemicals, and fertilizers	£	6,382,350	9,577,915	11,035,975	11,877,918	12,091,046	18,692,989
Arms and explosives	£	1,231,323	4,562,635	2,012,846	3,242,599	1,844,605	2,471,281
Musical instruments, pianos, etc.	£	200,368	137,882	433,649	626,065	686,517	908,394
Prefabricated houses and buildings	£	..	..	..	35,709	1,532,374	7,644,059
All other articles	£	26,084,671	35,928,026	55,331,225	62,167,155	72,384,641	110,413,134
Total Imports	£	116,754,029	209,484,823	339,746,128	415,194,200	538,068,843	743,870,587

(*a*) Excludes undressed timber not measured in super. ft.

4. **Exports of Principal Articles of Australian Produce.**—(i) *Quantities.* The following table shows the quantities of the principal articles of Australian produce exported during the years 1946–47 to 1950–51 compared with the year 1938–39. The articles are shown in the order in which they appear in the detailed classification.

PRINCIPAL COMMODITIES EXPORTED : QUANTITIES, AUSTRALIA.

Article.		1938–39.	1946–47.	1947–48.	1948–49.	1949–50.	1950–51.
Butter	centl.	2,295,428	1,336,423	1,847,738	1,835,520	1,774,517	1,200,307
Cheese	,,	359,236	535,553	509,445	582,539	514,036	447,899
Eggs in shell	doz.	10,144,344	17,493,879	14,518,033	19,604,507	23,046,749	13,522,133
Honey	lb.	687,007	13,928,488	14,985,753	32,093,553	20,768,811	7,483,618
Beef	centl.	2,719,638	1,803,385	2,371,501	1,916,531	1,823,613	1,584,045
Lamb	,,	1,583,327	1,120,945	1,030,888	873,548	1,233,479	456,844
Mutton	,,	281,558	522,084	193,941	275,090	697,440	84,240
Pork	,,	307,164	187,053	37,281	201,259	149,752	124,718
Milk and cream	,,	191,039	1,038,742	(*b*) 932,832	(*b*) 980,540	*b* 1,180,334	*b* 1,054,273
Fruits—							
Dried	,,	1,681,270	957,033	967,591	1,184,484	881,004	1,010,859
Fresh	,,	2,752,381	673,485	1,899,863	1,509,330	1,901,074	2,122,773
Breakfast foods	lb.	2,834,137	71,620,350	68,183,327	78,077,853	28,171,602	27,447,093
Barley	centl.	1,309,084	1,127,798	4,025,008	5,438,162	5,351,397	6,103,910
Oats	ton	2,094	700	121,275	376,357	118,311	141,906
Wheat	bus.	63,129,023	12,175,543	60,173,560	83,030,165	78,426,111	86,202,181
Other unprepared grains ..	ton	7,053	13,649	39,059	46,590	65,361	137,574
Rice	centl.	268,423	555,903	626,847	617,921	597,881	652,510
Flour	,,	14,501,304	15,301,958	15,687,411	17,095,607	15,422,175	17,660,198
Jams and jellies	lb.	13,869,935	65,271,776	59,641,653	53,602,768	65,228,426	42,128,741
Sugar (cane)	ton	443,014	117,004	100,351	415,194	432,711	387,841
Wine	gal.	3,719,401	2,720,547	2,688,303	1,877,536	1,101,834	1,222,466
Tobacco, manufactured ..	centl.	9,665	6,247	3,778	5,078	3,855	3,381
Wool (in terms of greasy wool)	,,	9,469,604	14,329,055	11,286,350	13,203,770	11,170,412	11,988,990
Pearl-shell	cwt.	52,532	5,535	15,915	27,885	33,840	22,880
Sandalwood	,,	32,962	22,426	2,946	3,117	3,890	6,882
Tallow (unrefined)	,,	562,500	60,243	68,540	142,170	348,214	260,560
Coal	ton	382,085	44,375	67,228	36,913	68,404	72,283
Ores and concentrates ..	cwt.	5,916,685	4,789,965	4,577,737	4,139,114	4,593,263	4,906,129
Copper	,,	21,555	37,143	37,803	24,034	12,470	3,282
Iron and steel	,,	5,634,878	7,244,164	2,619,629	2,500,707	1,323,709	1,215,563
Lead, pig	,,	4,099,919	2,509,064	2,255,410	2,549,002	2,441,452	2,145,618
Zinc—bars, blocks, slabs, ingots	,,	[illegible]	916,277	500,297	700,584	788,417	640,608
Tin—ingots	,,	29,431	265	14	1	13	..
Timber, undressed, including logs (*a*)	sup. ft.	77,833,352	27,935,061	23,813,186	24,794,384	29,354,842	29,345,644
Soap	centl.	49,871	125,700	23,599	37,619	59,518	107,021

(*a*) Excludes undressed timber not measured in super. ft. (*b*) Excludes Infants' and Invalids' Foods (essentially of Milk) included for previous years.

(ii) *Values.* The values of the principal articles of Australian produce exported during the years 1946–47 to 1950–51 compared with the year 1938–39 are shown in the following table :—

PRINCIPAL COMMODITIES EXPORTED : VALUES, AUSTRALIA.

(£.)

Article.	1938–39.	1946–47.	1947–48.	1948–49.	1949–50.	1950–51.
Butter	12,891,837	12,569,922	20,629,483	23,806,460	24,669,780	18,469,147
Cheese	1,073,931	2,643,355	3,253,273	4,096,930	4,145,430	4,025,120
Eggs in shell	638,159	1,416,549	1,575,073	2,360,381	2,948,889	1,892,644
Honey	13,957	556,605	579,285	1,217,183	814,115	292,880
Fish	9,799	165,293	266,064	835,289	638,272	1,032,813
Meats	11,776,637	21,130,318	22,583,235	29,761,460	34,959,568	30,390,251
Milk and cream	791,011	4,341,963	(b) 4,608,041	(b) 5,546,604	b 6,626,804	b 6,418,942
Fruits—						
Dried	2,864,676	2,429,584	2,543,140	3,449,502	2,825,057	4,663,494
Fresh	2,022,874	1,549,890	3.886,059	3,116,571	3,933,303	5,727,413
Preserved in liquid	1,267,070	2,114,248	2,762,790	4,131,554	4,017,558	5,476,091
Breakfast foods	30,759	1,403,630	1,423,666	1,688,515	870,159	507,711
Barley	341,935	1,636,020	8,134,000	6,864,173	6,433,051	9,052,932
Oats	18,857	12,183	3,941,662	6,160,586	2,393,520	3,529,070
Wheat	8,734,974	6,338,389	52,812,541	64,705,323	62,172,894	74,151,178
Other unprepared grains	41,509	348,059	1,351,463	441,675	1,317,050	2,686,454
Rice	179,012	755,889	1,043,747	1,242,747	1,180,514	1,500,163
Flour	4,540,216	22,534,957	31,823,013	33,720,862	26,332,757	32,894,370
Jams and jellies	262,441	2,201,633	2,232,143	2,049,188	2,473,034	1,871,655
Sugar (cane)	4,177,584	2,712,052	3,062,450	13,199,309	14,146,968	14,791,575
Vegetables, including pulse	121,159	3,233,319	3,011,394	2,279,974	2,192,198	1,574,705
Wine	981,143	1,181,482	1,429,768	991,822	513,991	634,091
Tobacco, manufactured	225,025	220,086	138,482	187,359	169,581	174,604
Hides and skins	4,094,754	15,423,238	12,346,521	12,205,406	15,149,910	27,198,507
Wool	42,629,461	126,103,960	148,737,915	231,395,766	313,136,138	633,297,651
Pearl-shell	244,266	149,975	408,681	606,767	624,517	485,685
Yarns	446,032	1,595,900	1,363,152	1,064,888	713,401	1,228,593
Piecegoods	81,842	3,010,285	1,430,895	920,478	895,498	909,054
Apparel and attire	114,740	3,982,273	1,286,155	1,191,482	790,998	527,796
Sandalwood	42,330	110,267	35,571	35,635	45,546	80,987
Tallow (unrefined)	483,034	317,002	461,739	965,344	1,573,787	1.322,140
Coal	347,054	54,754	108,733	97,353	206,460	242,649
Ores and concentrates	1,846.931	3,169,438	4,412,224	5,460,096	5,324,930	11,452,560
Copper	15,656	177,190	219,804	147,280	61,302	37,560
Iron and steel	2,232,890	4,562,087	2,555,891	2,570,729	1,590,994	1,505,562
Lead, pig	4,266,566	8,598,565	10,909,053	16,348,900	12,520,855	15,754,622
Motor vehicles and parts	116,673	619,738	315,418	332,075	582,946	530,677
Zinc—bars, blocks, slabs, ingots	887,421	2,713,001	1,821,509	3,254,244	3,403,681	5,279,183
Tin, ingots	370,137	5,201	384	25	572	20
Dynamo electrical machinery	275,786	883,234	1,048,828	1,275,516	1,156,603	1,336,441
Machines and machinery (excluding dynamo, electric)	470,249	3,439,393	4,773,754	4,316,741	3,805,522	4,695,118
Leather	626,198	1,961,284	1,469,421	1,565,866	1,931,630	2,570,010
Timber, undressed, including logs (a)	926,504	780,041	768,968	883,981	1,226,495	1,299,088
Drugs, chemicals and fertilizers	717,667	4,484,779	3,143,487	2,786,906	2,887,047	5,052,543
Soap	74,594	360,277	103,252	184,207	186,157	379,673
Arms, ammunition and explosives	190,004	2,019,729	806,034	1,346,613	1,663,614	3,464,161
Gold	14,958,633	1,232	3,830,938	4,281	1,301	346
Silver	992,486	77,164	1,109,830	1,392,107	2,018,646	2,681,102
All other articles	5,019,294	28,358,133	28,156,756	35,363,352	31,188,705	32,525,382
Total Exports (Australian Produce)	135,475,761	304,453,566	404.715.685	537,569,505	608,461,748	975,614,413

(a) Excludes undressed timber not measured in super. ft. (b) Excludes Infants' and Invalids' Foods (essentially of Milk) included for previous years.

5. **Imports of Merchandise, Specie and Bullion.**—The table hereunder shows the value of imports into Australia, during each of the years 1946–47 to 1950–51 compared with

the year 1938–39, grouped under the headings—Merchandise, and Specie and Bullion. The imports of merchandise are shown under the sub-headings of " free " and " dutiable " goods :—

IMPORTS OF MERCHANDISE, SPECIE AND BULLION : AUSTRALIA.

(£.)

Year.	Merchandise.			Specie and Bullion.	Total Imports.
	Free Goods.	Dutiable Goods.	Total Merchandise.		
1938–39 ..	46,358,322	66,858,671	113,216,993	3,537,036	116,754,029
1946–47 ..	98,282,215	110,060,181	208,342,396	1,142,427	209,484,823
1947–48 ..	143,894,126	194,191,128	338,085,254	1,660,874	339,746,128
1948–49 ..	179,202,477	234,853,313	414,055,790	1,138,410	415,194,200
1949–50 ..	239,144,671	296,979,412	536,124,083	1,944,760	538,068,843
1950–51 ..	366,294,927	375,083,234	741,378,161	2,492,426	743,870,587

6. **Exports of Merchandise, Specie and Bullion.**—The next table shows the recorded value of exports from Australia during the years 1946–47 to 1950–51 compared with the year 1938–39, grouped under the headings—Merchandise, and Specie and Bullion, showing the exports of Australian Produce and Other Produce separately :—

EXPORTS OF MERCHANDISE, SPECIE AND BULLION : AUSTRALIA.

(£.)

Year.	Merchandise.			Specie and Bullion.			Total.
	Australian Produce.	Other Produce.	Total.	Australian Produce.	Other Produce.	Total.	
1938–39 ..	119,524,594	2,008,706	121,533,300	15,951,167	3,011,845	18,963,012	140,496,312
1946–47 ..	304,374,458	4,534,371	308,908,829	79,108	40,695	119,803	309,028,632
1947–48 ..	399,774,831	5,213,990	404,988,821	4,940,854	24,654	4,965,508	409,954,329
1948–49 ..	536,172,936	4,930,083	541,103,019	1,396,569	173,120	1,569,689	542,672,708
1949–50 ..	606,441,626	5,211,430	611,653,056	2,020,122	23,441	2,043,563	613,696,619
1950–51 ..	972,932,605	6,163,420	979,096,025	2,681,808	18,354	2,700,162	981,796,187

7. **Imports in Tariff Divisions.**—In the following table the imports into Australia during the years 1946–47 to 1950–51 compared with the year 1938–39 have been classified in accordance with the sixteen divisions of the Customs Tariff.

IMPORTS CLASSIFIED ACCORDING TO DIVISIONS OF THE TARIFF : AUSTRALIA.

(£.)

Tariff Division.	1938–39.	1946–47.	1947–48.	1948–49.	1949–50.	1950–51.
I. Ale, Spirits, and Beverages ..	1,041,967	540,970	1,087,211	1,326,677	1,591,384	2,184,007
II. Tobacco and Preparations thereof	2,124,831	4,114,441	7,725,907	9,186,379	12,404,587	16,369,790
III. Sugar	45,639	189,303	48,921	40,713	54,051	83,417
IV. Agricultural Products and Groceries..	7,217,988	12,504,557	22,884,379	21,499,259	28,019,935	33,280,702
V. Textiles, Felts and Furs, and Manufactures thereof and Attire	18,150,192	42,428,306	81,429,582	94,888,675	90,055,835	121,169,472
VI. Metals and Machinery ..	25,271,834	24,236,051	44,869,199	80,103,380	138,554,244	196,347,203
VII. Oils, Paints and Varnishes ..	10,898,215	20,087,367	34,277,082	44,902,665	53,714,767	71,843,281
VIII. Earthenware, Cement, China Glass and Stone	2,631,754	3,947,533	7,510,221	7,956,592	9,439,620	11,630,304
IX. Drugs and Chemicals ..	4,600,329	6,836,767	7,533,585	8,112,362	10,528,577	17,900,050
X. Wood, Wicker and Cane ..	2,410,782	3,382,131	4,480,507	8,251,139	9,692,416	19,067,580
XI. Jewellery and Fancy Goods ..	2,332,380	3,789,211	4,909,816	6,670,935	10,228,719	13,817,564
XII. Hides, Leather and Rubber ..	2,137,699	5,521,018	5,911,538	7,852,612	12,883,217	27,575,829
XIII. Paper and Stationery ..	7,379,510	11,792,438	20,116,914	20,071,874	17,749,491	28,577,534
XIV. Vehicles .. "	10,560,164	15,375,503	23,759,972	41,817,363	79,610,712	84,838,060
XV. Musical Instruments.. ..	325,627	146,493	420,932	655,298	671,677	899,818
XVI. Miscellaneous	16,088,082	53,450,307	71,119,488	60,719,858	60,926,851	95,793,550
Total, Merchandise	113,216,993	208,342,396	338,085,254	414,055,790	536,124,083	741,378,161
Total, Specie and Bullion ..	3,537,036	1,142,427	1,660,874	1,138,410	1,944,760	2,492,426
Grand Total	116,754,029	209,484,823	339,746,128	415,194,200	538,068,843	743,870,587

8. **Imports and Net Customs Revenue.**—The percentage of net Customs revenue collected on the total value of all merchandise imported in each year was as follows :—1938–39, 21.9 per cent. ; 1946–47, 17.1 per cent. ; 1947–48, 14.9 per cent. ; 1948–49, 14.0 per cent. ; 1949–50, 13.4 per cent. and 1950–51, 16.3 per cent. Primage duty was in force during these years and adding this to net Customs revenue, the percentages were as follows :—1938–39, 25.0 per cent. ; 1946–47, 19.8 per cent. ; 1947–48, 17.0 per cent. ; 1948–49, 15.3 per cent. ; 1949–50, 14.5 per cent. ; and 1950–51, 12.4 per cent. The percentages of net Customs revenue, omitting primage, on the total value of dutiable goods only were—1938–39, 37.1 per cent. ; 1946–47, 32.3 per cent. ; 1947–48, 26.0 per cent. ; 1948–49, 24.7 per cent. ; 1949–50 24.6 per cent. ; and 1950–51, 22.4 per cent. The calculations are based on Australian currency values and on the assumption that the value of clearances approximated to the value of imports during the same period.

9. **Protective and Revenue Customs Duties.**—The value of goods cleared for Australian consumption classified under protective and revenue duties and the gross duty collected are shown in respect of the United Kingdom and other countries for each of the years 1937–38 to 1939–40 in Official Year Book No. 37, page 418. Information for later years is not available.

§ 10. Ships' Stores.

Prior to 1906, goods shipped in Australian ports on board oversea vessels as ships' stores were included in the general exports. From 1906, ships' stores have been specially recorded as such, and have been omitted from the export figures. The value of these stores shipped each year during the period 1942–43 to 1950–51, compared with 1938–39, with fuel oils separate, is shown in the following table :—

VALUE OF STORES SHIPPED ON OVERSEA VESSELS : AUSTRALIA.

(£.)

Period.	Fuel Oils.	All Stores (including Fuel Oils).	Period.	Fuel Oils.	All Stores (including Fuel Oils).
1938–39	606,515	2,105,619	1946–47 ..	1,684,502	4,506,599
1942–43	3,833,414	6,016,334	1947–48 ..	2,551,736	5,509,945
1943–44	6,078,800	8,478,714	1948–49 ..	3,830,986	7,814,722
1944–45	8,229,307	11,373,252	1949–50 ..	3,169,374	7,580,959
1945–46	2,849,156	6,331,657	1950–51 ..	4,635,486	9,358,022

In addition to fuel oils, the principal items of ships' stores supplied to oversea vessels in 1950–51 were—Meats, £1,519,009 ; Fruit and Vegetables, £522,994 ; Bunker Coal, £248,828 ; Butter, £187,689 ; Oils, other than Fuel, £185,400 ; Eggs, £165,869 ; Fish, £157,190 ; and Milk and Cream, £121,796.

§ 11. Movement of Specie and Bullion.

1. **Imports and Exports.**—The following tables show the values of gold and silver specie and bullion, and of bronze specie imported into and exported from Australia during the years 1938–39 and 1946–47 to 1950–51.

IMPORTS AND EXPORTS, SPECIE AND BULLION : AUSTRALIA.

(£.)

Item.	1938–39.	1946–47.	1947–48.	1948–49.	1949–50.	1950–51.
			IMPORTS.			
Gold—Specie ..	16,686	7	..	165	814	223
Bullion ..	3,439,322	1,122,570	1,643,606	1,108,506	1,922,045	2,457,994
Total ..	3,456,008	1,122,577	1,643,606	1,108,671	1,922,859	2,458,217
Silver—Specie ..	57,841	11,286	5,753	20,970	14,948	4,861
Bullion ..	22,963	8,564	11,502	8,769	6,953	29,342
Total ..	80,804	19,850	17,255	29,739	21,901	34,203
Bronze—Specie ..	224	..	13	..	..	6
Total ..	3,537,036	1,142,427	1,660,874	1,138,410	1,944,760	2,492,426

IMPORTS AND EXPORTS, SPECIE AND BULLION: AUSTRALIA—*continued.*

(£.)

Item.	1938–39.	1946–47.	1947–48.	1948–49.	1949–50.	1950–51.
EXPORTS.						
Gold—Specie ..	110,204	..	30	..	..	52
Bullion ..	17,843,088	1,345	3,830,908	4,281	1,301	294
Total ..	17,953,292	1,345	3,830,938	4,281	1,301	346
Silver—Specie ..	42,726	81,132	64,488	249,052	81,513	122,089
Bullion ..	966,716	36,727	1,069,956	1,281,500	1,960,574	2,577,263
Total ..	1,009,442	117,859	1,134,444	1,530,552	2,042,087	2,699,352
Bronze—Specie ..	278	599	126	34,856	175	464
Total—						
Australian Produce ..	15,951,167	79,108	4,940,854	1,396,569	2,020,122	2,681,808
Other Produce ..	3,011,845	40,695	24,654	173,120	23,441	18,354
Grand Total ..	18,963,012	119,803	4,965,508	1,569,689	2,043,563	2,700,162

2. **Imports and Exports by Countries.**—The next table shows the imports and exports of specie and bullion from and to various countries during the year 1950–51 :—

IMPORTS AND EXPORTS OF SPECIE AND BULLION BY COUNTRIES: AUSTRALIA, 1950–51.

(£.)

Country.	Specie.	Bullion.	Total.
IMPORTS.			
Australia(a)	2,672	..	2,672
United Kingdom	103	492	595
Australian Territories—			
New Guinea	220	2,304,345	2,304,565
Papua	..	3,535	3,535
Mauritius	..	125	125
New Zealand	458	172,281	172,739
Pacific Islands—Fiji	..	6,420	6,420
Union of South Africa	..	15	15
Total British Countries	3,453	2,487,213	2,490,666
China	..	28	28
France	..	95	95
United States of America	1,637	..	1,637
Total Foreign Countries	1,637	123	1,760
Grand Total	5,090	2,487,336	2,492,426

(a) Australian produce re-imported.

IMPORTS AND EXPORTS OF SPECIE AND BULLION BY COUNTRIES : AUSTRALIA, 1950–51—*continued.*

(£.)

Country.	Specie.	Bullion.	Total.
EXPORTS.			
United Kingdom	9,883	2,577,263	2,587,146
Australian Territories—			
Nauru	644	..	644
New Guinea	55,770	..	55,770
Norfolk Island	200	..	200
Papua	3,320	..	3,320
New Zealand	6,279	294	6,573
Pacific Islands—			
Gilbert and Ellice Islands	700	..	700
New Hebrides	39,000	..	39,000
Solomon Islands	800	..	800
Tonga	3,750	..	3,750
Union of South Africa	350	..	350
Total British Countries	120,696	2,577,557	2,698,253
Japan	1,000	..	1,000
Palestine	894	..	894
United States of America	15	..	15
Total Foreign Countries	1,909	..	1,909
Grand Total	122,605	2,577,557	2,700,162

§ 12. Exports according to Industries.

1. **Classification.**—The following table provides an analysis of the exports of Australian produce, according to the main classes of industry in which the goods were produced, for the years 1949–50 and 1950–51 in comparison with those for the years 1913 and 1938–39. The index-number based on the year 1913 shows the variations in the total recorded value only of exports in each industrial group, and has not been adjusted either for price-changes or in accordance with the variation of the Australian £ in relation to sterling.

A graph is published on page 473 of this chapter which shows the value of exports of Australian produce according to industrial groups from 1910 onward.

EXPORTS OF AUSTRALIAN PRODUCE ACCORDING TO INDUSTRIAL ORIGIN : VALUE.

Industrial Group.	1913.(*a*)		1938–39.		1949–50.		1950–51.	
	£'000.	Index No.	£'000.	Index No.	£'000.	Index No.	£'000.	Index No.
Agriculture ..	10,678	100	26,361	247	133,389	1,249	160,030	1,507
Pastoral ..	42,057	100	59,115	141	362,704	862	691,049	1,643
Dairy and Farm-yard	3,855	100	15,640	406	45,525	1,181	36,147	938
Mines and Quarries *b*	21,926	100	23,984	109	37,025	168	49,156	224
Fisheries ..	425	100	288	68	1,313	309	1,746	411
Forestry ..	1,106	100	1,056	95	2,019	183	1,515	137
Total, Primary Produce ..	80,047	100	126,444	158	581,975	727	940,543	1,175
Manufacturing ..	2,305	100	8,650	375	38,984	1,691	48,638	2,110
Total ..	82,352	100	135,094	164	620,959	754	989,181	1,201

(*a*) Base Year. (*b*) Australian production of gold substituted for exports of gold each year.

2. **Relative Importance of Industrial Groups.**—In the previous table the value of commodities in each industrial group of exports of Australian produce is that recorded at the date of shipment from Australia, with the exception that the value of the production

of gold in Australia in each year has been substituted in the Mines and Quarries group for actual shipments of gold in each year. This has been done to eliminate the exports of gold for monetary purposes. In order of importance the pastoral group occupied the highest place, representing in 1913, 51.1 per cent. of the total exports, as compared with 43.7 per cent. in 1938–39, 58.4 per cent. in 1949–50, and 69.8 per cent. in 1950–51.

Exports of agricultural produce rank next in importance. From 13.0 per cent. of the total exports in 1913, agricultural produce increased to 19.5 per cent. in 1938–39. It represented 21.5 per cent. and 16.3 per cent. in 1949–50 and 1950–51 respectively.

According to value, exports of dairy and farmyard produce increased from 4.7 per cent. in 1913 to 11.6 per cent. in 1938–39, but declined to 7.3 per cent. in 1949–50 and to 3.6 per cent. in 1950–51. Though the products of mines and quarries declined seriously subsequently to the year 1913, a recovery was made in later years, the figures for 1938–39 representing 17.7 per cent., but in 1949–50 and 1950–51 the percentages were only 6.0 and 5.0 respectively. The manufacturing groups of exports, which represented 2.8 per cent. in 1913, had increased to 6.4 per cent. in 1938–39 and to 15.7 per cent. in 1945–46. In 1949–50 these groups represented 6.3 per cent. and in 1950–51 4.9 per cent.

§ 13. Australian Index of Export Prices.

1. **General.**—Over the past fifty years the exports of Australia have become increasingly diversified but, although the proportion of highly manufactured exports has increased, it is still small in relation to total exports. Most of these exports still consist of basic products, such as wool, wheat, butter, etc.

2. **Historical.**—An annual index of export prices has been published by this Bureau since its inception.

The first index was compiled annually for the years 1901 to 1916–17. The method of computation was to select all those articles of export which were recorded by units of quantity, and to apply to the quantities of these export commodities actually exported during any year the average price per unit ruling in the year 1901 (adopted as the basic year). The total value so obtained was divided into the total actual (recorded) value of these exports for that year. The quotient (multiplied by 1,000) thus obtained was the export price index-number for that year.

The method was changed in 1918. A weight for all principal exports was calculated on the average quantities of exports for the nineteen and a half years from 1st January, 1897, to 30th June, 1916. To these weights were applied the " average unit export values " of each export in successive years, and a weighted aggregative index of " price " variations was derived. It was published for the years 1897 to 1929–30, and particulars of this index were last published in Official Year Book No. 24, 1931, on page 147.

After the 1914–18 War, however, the relative importance of different exports changed considerably. In addition, the pattern of exports had become liable to vary considerably from year to year.

3. **Present Indexes.**—For the reasons just mentioned, two new series of monthly export price indexes—one using fixed weights, the other changing weights—were published in 1937, computed back to 1928. These are the only export price indexes now published.

The data on which both series are based differ from those utilized in the old series of annual index-numbers. The most important change was the use of actual (or calculated) export parities, based on actual price quotations, in place of the " unit-values " declared at the Customs.

The old index took no account of gold exports. The omission is natural and reasonable for countries which produce little or no gold. For gold-producing countries, although some exports of gold would be irrelevant (e.g., the Australian shipments of gold reserves during the depression), the exports of newly-produced gold should be taken into account. In the new series, therefore, gold is included, but the weight given to it is not the quantity exported but the quantity produced.

The two series are compiled monthly, and both relate to commodities which normally constitute about 80 per cent. of the total value of exports of merchandise and silver and gold production.

4. **Monthly Index (Fixed Weights).**—This is a weighted aggregative index of price variations. It was computed back to 1928, with that year taken as base. It is now usually published on the base—average of three years ended June, 1939 = 100.

The purpose of this index is to provide comparisons, over a limited number of years, of the level of prices of those commodities normally exported from Australia, making no allowance for any benefit or disadvantage accruing from variations during the period in the relative proportions of the different kinds of exports.

(*a*) *Weights.* The original weights (used for the period 1928 to 1936) were, in round figures, the average annual exports (or production, in the case of gold) during the five years 1928–29 to 1932–33.

From July, 1936, the weights were revised, and are now based on the average annual exports (production in the case of gold) during the three years 1933–34 to 1935–36. The break of continuity has been bridged by the usual method of splicing. Consideration is being given to adopting weights for a post-war period.

The weight adopted for wheat takes into account the wheat equivalent of flour exported, the weight allotted to greasy wool takes account of the greasy equivalent of scoured wool, tops, and wool on skins, whilst for some metals allowance is made for the metallic content of ores and concentrates exported.

The twenty items, together with the units of quantity and the weights or "quantity multipliers", are given in the following table.

EXPORT PRICE INDEX : COMMODITIES AND WEIGHTING SYSTEM.

(FROM 1ST JULY, 1936.)

Item.	Unit of Quantity.	"Quantity Multipliers".	Percentage Distribution of Aggregative Value.			
			Base Period 1936–37 to 1938–39.		Year 1950–51.	
			Excluding Gold.	Including Gold.	Excluding Gold.	Including Gold.
Wool	lb.	975,000,000	49.05	45.63	70.95	69.62
Wheat (*a*)	Bushel	101,000,000	18.34	17.06	11.47	11.25
Butter	Cwt.	2,140,000	12.21	11.36	4.79	4.70
Metals—						
Silver	Oz. (standard)	7,300,000	0.68	0.64	0.34	0.33
Copper	Ton	3,600	0.20	0.20	0.13	0.13
Tin	"	1,300	0.31	0.28	0.21	0.21
Spelter	"	90,000	2.05	1.90	2.31	2.27
Lead	"	208,500	4.10	3.81	4.33	4.25
Meats—						
Beef	lb.	182,000,000	2.56	2.38	0.89	0.87
Lamb	"	138,000,000	3.56	3.31	0.95	0.94
Mutton	"	44,000,000	0.58	0.54	0.15	0.14
Pork	"	16,000,000	0.43	0.40	0.17	0.17
Sugar	Ton	305,000	2.58	2.40	1.54	1.51
Dried Fruits—						
Sultanas	"	38,200	1.45	1.35	0.46	0.45
Lexias	"	3,000	0.12	0.11	0.03	0.03
Currants	"	13,400	0.37	0.35	0.14	0.13
Tallow	Cwt.	600,000	0.69	0.64	0.36	0.35
Hides—						
Cattle	lb.	28,000,000	0.64	0.59	0.70	0.69
Calf	"	1,800,000	0.08	0.07	0.08	0.08
Gold	Oz. (fine)	937,000	..	6.98	..	1.88
			100.00	100.00	100.00	100.00

(*a*) Includes "wheat equivalent" of flour.

The percentage distributions of the "Aggregative Values" shown in the foregoing table are of importance, firstly, as showing their variations from time to time as the result of differential price movements as between the various commodities, and secondly, as regards the effect on the indexes as a whole of the percentage price variations in each commodity.

(*b*) *Prices.* The adoption of current market prices (as distinct from the former average unit export values) in the present indexes permitted the use of standards for each commodity. All export parities are calculated from price quotations from the most reliable and representative sources available. In most cases, the prices used are those at which current sales are being effected. Of recent years, however, great difficulty has been experienced in obtaining appropriate current market price data for some commodities. It has become impossible to adhere to a common principle. Actual (or calculated) export parities currently prevailing, priced at f.o.b. Australian ports, are still used whenever possible. However, since dual or multiple price systems have become operative for some exports, the prices used in the index for wheat (detailed notes were given on pages 508 and 509 of Official Year Book No. 38 for 1951) and certain metals represent average actual realizations for current *shipments.* Current market prices used for the main commodities are :—

(i) the price for wool is a weighted average (based on clean scoured prices) of representative types at Sydney auctions, expressed in terms of pence per lb., greasy ;

(ii) where contracts exist between the Australian and the United Kingdom Governments for certain commodities and when most of the exports of such items are sold at these rates, contract prices are used (e.g. meats, butter, dried fruits, tallow) ; and

(iii) for those metals which are at present not actually exported, Australian export parities are estimated on the basis of the prices ruling in London.

(*c*) *Index Numbers.* The following table shows export price index-numbers for Australia for individual commodities, groups of commodities, and all groups combined for each financial year from 1936–37 to 1950–51 and monthly for the year 1950–51.

EXPORT PRICE INDEXES : AUSTRALIA.

SIMPLE AGGREGATIVE INDEX : FIXED WEIGHTS.

INDIVIDUAL COMMODITIES, GROUPS OF COMMODITIES AND ALL GROUPS (COMBINED).

(*Base of each section : Average of three years ended June,* 1939 = 100.)

Period.	Wool.	Wheat.	Butter.	Metals. (*a*)	Meats. (*b*)	Sugar.	Dried Fruits. (*c*)	Tallow.	Hides. (*d*)	Gold.	All Groups.	
											Excluding Gold.	Including Gold.
Percentage Distribution of Base Aggregate—												
(*e*) ..	45.63	17.06	11.36	6.83	6.63	2.40	1.81	0.64	0.66	6.98	..	100.00
(*f*) ..	49.05	18.34	12.21	7.34	7.13	2.58	1.94	0.69	0.72	..	100.00	..
1936–37 ..	122	123	92	120	98	104	103	122	113	99	116	115
1937–38 ..	99	111	107	96	106	92	103	100	100	98	102	102
1938–39 ..	79	66	101	84	96	104	94	78	87	103	82	83
1939–40 ..	98	82	108	92	102	126	94	76	120	118	96	98
1940–41 ..	101	102	110	95	103	137	95	82	98	121	103	104
1941–42 ..	101	105	110	101	109	137	106	114	133	120	105	106
1942–43 ..	117	106	114	100	112	152	112	119	145	119	114	114
1943–44 ..	117	116	114	113	113	159	121	123	151	119	117	117
1944–45 ..	117	154	147	129	122	172	128	151	147	120	130	130
1945–46 ..	117	213	147	196	123	213	137	161	152	122	148	146
1946–47 ..	173	305	173	308	139	264	152	361	334	122	209	203
1947–48 ..	287	420	193	372	146	320	157	436	364	122	296	283
1948–49 ..	365	413	233	478	171	343	162	499	421	122	348	332
1949–50 ..	473	400	250	421	196	369	176	400	479	164	399	383
1950–51 ..	999	432	271	689	209	410	226	356	752	176	690	654
1950–51—												
July ..	(*g*) 592	424	271	496	205	394	187	363	490	176	472	451
August ..	864	423	271	547	205	394	187	363	578	176	609	579
September ..	890	419	271	675	205	394	187	363	632	176	631	599
October ..	890	427	271	681	208	394	187	354	663	176	634	602
November ..	965	436	271	704	208	394	187	354	693	176	674	639
December ..	973	437	271	700	208	394	187	354	719	176	678	643
January ..	1,252	430	271	713	208	426	187	354	838	176	816	771
February ..	1,339	423	271	714	208	426	187	354	1,041	176	859	811
March ..	1,437	428	271	739	208	426	303	354	1,010	176	912	860
April ..	1,094	443	271	774	208	426	303	354	829	176	747	708
May ..	973	445	271	771	219	426	303	354	811	176	689	653
June ..	717	447	271	751	219	426	303	354	726	176	562	535

(*a*) Non-Ferrous—silver, copper, tin, zinc, lead. (*b*) Beef, lamb, mutton, pork. (*c*) Sultanas, lexias, currants. (*d*) Cattle hides, calf skins. (*e*) For "All Groups (including Gold)"—applicable from 1936–37. (*f*) For "All Groups (excluding Gold)"—applicable from 1936–37. (*g*) Nominal.

Reference to the group indexes in the table above will show the great increases and the wide dispersion of prices of export commodities in recent years. In particular, very great movements upwards and downwards occurred in the price of wool during the twelve months ended June, 1951. Similar, but less marked, movements have occurred in prices of metals and hides. Since wool is a predominant export (with 46 per cent. of the Base Aggregate of the index) fluctuations in wool prices obscure the movements affecting the other components in the All Groups index. For purposes of comparison they are shown separately below.

RECENT TRENDS—EXPORT PRICE INDEX: WOOL AND "OTHER GROUPS".

(Base of each section: Average of three years ended June, 1939 = 100.)

Year ended June—	Wool.	Other Groups.	All Groups.	Month.	Wool.	Other Groups.	All Groups.
1937	122	108	115	1950—July ..	(a) 592	333	451
1938	99	105	102	August ..	864	340	579
1939	79	87	83	September ..	890	355	599
				October ..	890	360	602
1944	117	118	117	November ..	965	366	639
1945	117	141	130	December ..	973	366	643
1946	117	171	146	1951—January ..	1,252	368	771
1947	173	228	203	February ..	1,339	369	811
1948	287	280	283	March ..	1,437	377	860
1949	365	305	332	April ..	1,094	384	708
1950	473	308	383	May ..	973	385	653
1951	999	365	654	June ..	717	383	535

(a) Nominal.

5. **Monthly Index (Changing Weights).**—This series was designed for shorter period comparisons—from one or more months of the current year to the corresponding months of the previous year. It is compiled in such a way as to take closer account of the actual quantities of each article exported at current prices; and hence to indicate with rather greater accuracy the extent to which price movements have affected the actual value of our current exports.

For any given month, the procedure is to multiply the price of each commodity in that month, and its price in the corresponding month of the previous year, by the quantity exported during the given month. A comparison of the resulting aggregates gives one possible measure of the change in prices over the period; i.e., the change assuming that the proportions of the different kinds of exports whose prices are to be measured were the same as their proportions in the given month. Another possible measure is given by assuming that the proportions of the different kinds of exports in the given month had been the same as their proportions in the corresponding month of the previous year. Accordingly the first step in the procedure is repeated, substituting the quantities exported during the corresponding month of the previous year.

The index-numbers so obtained have been proved over a period of years to lie very close together. As it is convenient for practical reasons to have one single figure rather than two close alternatives the two index-numbers are multiplied together and the square root of the product extracted. This is taken to be the index-number for the month, the prices of the corresponding month of the previous year being taken as base.

The index-numbers for two or more months of one year, as compared with the corresponding period of the previous year, are computed in very much the same way. The process merely involves the cumulative addition of the aggregates computed for the individual months, and extraction of the index-numbers as explained above.

Index numbers computed on this basis are shown in the following table for the years 1949–50 and 1950–51:—

MONTHLY EXPORT PRICE INDEX (CHANGING WEIGHTS) : AUSTRALIA.

(*Base : Weighted Average Price Level in corresponding months of preceding year* = 100.)

Month.	*Month stated* compared with same month of preceding year.				*Period of trade year ending in month stated* compared with same period of preceding year.			
	1949–50.		1950–51.		1949–50.		1950–51.	
	Excluding Wool.	Including Wool.	Excluding Wool.	Including Wool.	Excluding Wool.	Including Wool.	Excluding Wool.	Including Wool.
July	84	91	119	156	84	91	119	156
August	87	92	119	182	86	92	119	168
September	92	94	117	174	88	92	118	170
October	96	110	114	184	90	97	117	175
November	97	108	117	196	91	100	117	181
December	101	110	115	182	93	102	117	181
January	104	130	112	196	94	106	116	184
February	105	119	109	192	96	108	115	185
March	104	119	113	226	97	110	115	191
April	113	145	113	174	98	112	115	189
May	116	159	112	145	100	118	114	183
June	115	149	114	119	101	120	114	178

Monthly export price index-numbers are issued in regular press notices, in the *Monthly Review of Business Statistics* and in the *Quarterly Summary of Australian Statistics*.

§ 14. External Trade of Australia and other Countries.

1. **Essentials of Comparisons.**—Direct comparisons of the external trade of any two countries are possible only when the general conditions prevailing therein, and the system of record, are more or less identical. For example, in regard to the mere matter of record, it may be observed that in one country the value of imports may be the value at the port of shipment, while in another the cost of freight, insurance and charges may be added thereto. Again, the values of imports and exports in one may be declared by merchants, whereas in another they may be the official prices fixed from time to time by a commission constituted for the purpose. In later years, moreover, a very substantial

difference in the value of imports would rise from the different methods of converting the moneys of foreign countries, i.e., from the application of current rates of exchange or of the mint par. Lastly, the figures relating to the external trade of any country are also affected in varying degree by the extent to which they include transit or re-export trade. This class of trade represents a much greater proportion of the trade of Switzerland and Belgium than that of other countries. France and the United Kingdom also re-export largely, whereas in Canada, Australia and New Zealand the same class of trade represents a comparatively small proportion of the total trade.

2. **"Special Trade" of Various Countries.**—In the following table the figures, which represent Australian currency values, relate as nearly as possible to imports entered for consumption in the various countries specified, and to exports of their domestic products. It is to be noted, however, that these figures do not invariably denote the same thing throughout, since, in the United Kingdom and other manufacturing countries, raw or partly manufactured materials are imported as for home consumption, and, after undergoing some process of manufacture or further modification, are re-exported as domestic production. Nevertheless, a comparison of this character reveals approximately the extent of the external trade which otherwise would not be manifest. The latest figures relating to foreign countries have been extracted from the publications of the United Nations and converted to Australian currency.

IMPORTS FOR HOME CONSUMPTION, AND EXPORTS OF DOMESTIC PRODUCTS (MERCHANDISE ONLY) : VARIOUS COUNTRIES, 1950.

Country.	Trade (£A. Million.)			Trade per Head of Population (£A.).		
	Imports.	Exports.	Total.	Imports.	Exports.	Total.
Australia	614.8	738.9	1,353.7	75.0	90.1	165.1
United Kingdom	3,160.8	2,718.9	5,879.7	624.7	537.3	1,162.0
Canada	1,063.5	1,055.5	2,119.0	77.6	77.1	154.7
Austria	157.7	145.0	302.7	22.5	20.7	43.2
Belgium	872.3	738.7	1,611.0	96.9	82.1	179.0
Denmark	381.6	297.7	679.3	95.4	74.4	169.8
Egypt	255.1	228.7	483.8	12.8	11.4	24.2
Finland	174.8	159.8	334.6	43.7	40.0	83.7
France	1,371.0	1,370.9	2,741.9	32.7	32.6	65.3
Germany, West	1,214.1	892.6	2,106.7	25.3	18.6	43.9
Italy	644.3	537.2	1,181.5	14.0	11.7	25.7
Netherlands	917.6	631.1	1,548.7	91.8	63.1	154.9
Norway	303.6	174.3	477.9	101.2	58.1	159.3
Portugal	123.2	83.2	206.4	15.4	10.4	25.8
Spain	49.1	48.7	97.8	1.8	1.7	3.5
Sweden	529.0	493.7	1,022.7	75.6	70.5	146.1
Switzerland	463.8	400.0	863.8	92.8	80.0	172.8
Turkey	128.1	118.1	246.2	6.1	5.6	11.7
United States of America	3,905.4	4,526.8	8,432.2	25.7	29.8	55.5

§ 15. Oversea Trade in Calendar Years.

For the purpose of comparison with countries which record oversea trade in calendar years the following table has been compiled to show Australian imports and exports for each quarter of the calendar years 1939 and 1949 to 1951 :—

OVERSEA TRADE IN CALENDAR YEARS : AUSTRALIA.

(£'000.)

Year.	Merchandise.		Bullion and Specie.		Total.	
	Imports.	Exports.	Imports.	Exports.	Imports.	Exports.
QUARTER ENDED MARCH.						
1939.. ..	28,611	30,905	925	4,361	29,536	35,266
1949.. ..	106,656	138,934	126	285	106,782	139,219
1950.. ..	142,137	179,299	672	843	142,809	180,142
1951.. ..	187,959	277,992	372	561	188,331	278,553
QUARTER ENDED JUNE.						
1939.. ..	26,815	26,309	703	4,798	27,518	31,107
1949.. ..	108,231	137,003	325	355	108,556	137,358
1950.. ..	153,792	174,933	317	630	154,109	175,563
1951.. ..	219,905	313,230	597	1,259	220,502	314,489
QUARTER ENDED SEPTEMBER.						
1939.. ..	28,367	24,596	870	4,778	29,237	29,374
1949.. ..	113,124	108,795	462	183	113,586	108,978
1950.. ..	171,514	133,586	1,140	454	172,654	134,040
1951.. ..	255,812	144,891	198	636	256,010	145,527
QUARTER ENDED DECEMBER.						
1939.. ..	25,541	41,918	1,228	6,185	26,769	48,103
1949.. ..	127,071	148,626	494	388	127,565	149,014
1950.. ..	161,936	254,288	388	426	162,324	254,714
1951.. ..	277,076	172,967	586	602	277,662	173,569
TOTAL FOR YEAR.						
1939.. ..	109,334	123,728	3,726	20,122	113,060	143,850
1949.. ..	455,082	533,358	1,407	1,211	456,489	534,569
1950.. ..	629,379	742,106	2,517	2,353	631,896	744,459
1951.. ..	940,752	909,080	1,753	3,058	942,505	912,138

§ 16. Excise.

Although excise goods have no immediate bearing on oversea trade the rates of excise duty are in some cases related to the import duty on similar goods. Moreover, as the Excise Acts are administered by the Department of Trade and Customs it is convenient to publish here the quantities of Australian produce on which excise duty has been paid. Particulars of Customs and Excise Revenue are shown in Chapter XVII. —Public Finance. The following table shows the quantities of spirits, beer, tobacco, etc., on which excise duty was paid in Australia during the years 1946–47 to 1950–51 compared with the year 1938–39.

QUANTITIES OF SPIRITS, BEER, TOBACCO, ETC., ON WHICH EXCISE DUTY WAS PAID : AUSTRALIA.

Article.	1938–39.	1946–47.	1947–48.	1948–49.	1949–50.	1950–51.
	proof gal.	proof gal.	proof gal.	proof gal.	proof gal.	proof gal.
Spirits—						
Brandy	198,583	329,068	392,046	446,268	419,195	535,371
Gin	269,118	601,691	598,669	603,817	495,552	606,346
Whisky	157,705	371,574	426,426	466,984	508,373	623,999
Rum	347,648	580,203	675,279	690,816	738,420	784,588
Liqueurs	5,705	68,790	45,472	32,359	32,782	54,794
Spirits, n.e.i.	170	4,601	765	4,548	679	163
Spirits for Industrial or Scientific purposes ..	114,129	203,224	184,152	168,533	184,891	211,952
Spirits for Fortifying Wine ..	770,997	1,511,407	2,289,580	2,463,758	2,435,373	2,651,938
Spirits for Making Vinegar ..	17,965	62,930	58,675	63,345	74,133	63,543
	gal.	gal.	gal.	gal.	gal.	gal.
Amylic Alcohol and Fusel Oil ..	23	62	3	1	45	58
Methylated Spirit	..	853,660	..	..	..	..
	proof gal.	proof gal.	proof gal.	proof gal.	proof gal.	proof gal.
Spirits for the manufacture of Essences	57,376	92,393	100,520	88,881	112,809	120,038
Spirits for the manufacture of Scents, etc.	47,778	101,979	86,711	84,124	72,579	65,174
	gal.	gal.	gal.	gal.	gal.	gal.
Beer	83,904,645	119,473,969	118,090,552	138,838,184	145,824,777	162,863,148
	lb.	lb.	lb.	lb.	lb.	lb.
Tobacco—Manufactured, n.e.i.	15,734,675	19,066,568	19,138,523	18,552,433	19,723,547	20,703,779
Hand-made ..	41,774	..	..	..	..	961
Unmanufactured, etc.	5,604,256	..	..	..	..	..
Total, Tobacco ..	21,380,705	19,066,568	19,138,523	18,552,433	19,723,547	20,704,740
	lb.	lb.	lb.	lb.	lb.	lb.
Cigars—Machine-made ..	71,051	32,028	36,425	55,012	83,676	112,328
Hand-made ..	187,450	110,577	125,837	111,467	92,683	68,417
Total, Cigars	258,501	142,605	162,262	166,470	176,359	180,745
	lb.	lb.	lb.	lb.	lb.	lb.
Cigarettes—Machine-made ..	6,891,144	9,042,625	9,782,288	9,550,936	10,184,242	10,680,179
Hand-made ..	114	..	..	..	..	..
Total, Cigarettes ..	6,891,258	9,042,625	9,782,288	9,550,936	10,184,242	10,680,179
	lb.	lb.	lb.	lb.	lb.	lb.
Snuff	..	660	..	..	..	..
	60 papers or tubes.	60 papers or tubes.	60 papers or tubes.	60 papers or tubes.	60 papers or tubes.	60 papers or tubes.
Cigarette Tubes and Papers ..	101,977,824	129,244,343	145,380,471	123,091,390	137,453,001	159,934,062
	gross of boxes.	gross of boxes.	gross of boxes.	gross of boxes.	gross of boxes.	gross of boxes.
Matches	3,278,759	3,414,990	3,264,439	3,315,163	3,314,672	3,747,633
	gal.	gal.	gal.	gal.	gal.	gal.
Petrol	27,878,912	28,237,869	56,301,529	64,095,876	75,605,070	86,491,522
	doz. packs.	doz. packs.	doz. packs.	doz. packs.	doz. packs.	doz. packs
Playing Cards	117,412	91,603	116,339	134,826	123,432	126,010
	lb.	lb.	lb.	lb.	lb.	lb.
Carbonic Acid Gas	..	2,472,991	..	..	..	..
Dry Batteries and Cells ..	..	2,488,400	..	..	..	..
Saccharin	..	12,199	7,354	266	66	55

§ 17. The Australian Balance of Payments.*

1. **General.**—The last two decades have seen a great increase in the use of balance of payments statistics, both in the consideration of economic policy by governments and, generally, in the analysis of economic conditions. Information on the Australian balance of payments has always been of peculiar importance in view of the marked effect which fluctuations in world trade tend to exercise on the level of activity of the Australian economy.

The presentation of comprehensive estimates of Australia's balance of payments was recently resumed with the publication of *The Australian Balance of Payments* 1928–29 *to* 1948–49, which contains a full explanation of the principles on which the estimates are based and the techniques used in their compilation. In the main, the pattern used in the presentation of Australian balance of payments statistics follows closely that used by the International Monetary Fund, but several modifications have been introduced which are believed to be more suitable to Australian conditions.

As detailed information in respect of some items is not available for periods ranging up to twelve months after the end of the financial year the estimates given for 1950–51 in the following pages are of a preliminary nature.

Continuous investigations are being conducted with a view to improving the methods of estimation employed and further revisions may be necessary to current estimates as more refined techniques are adopted in the future.

2. **Australia's Balance of Payments on Current Account, 1948–49 to 1950–51.**—The table on page 509 shows estimates of Australia's balance of payments on current account from 1948–49 to 1950–51.

After a deficit of £48.8 million in 1946–47 and a favourable balance on current account of £2.8 million in 1947–48, a favourable balance of £28.2 million was achieved in the third post-war year 1948–49, owing mainly to a favourable trade balance of £106.8 million. In 1949–50 Australia's favourable trade balance fell to £55.5 million; freight and insurance payments on imports and investment income payable overseas increased by £22.7 million and £13.7 million respectively, and as fluctuations in other invisibles tended to offset one another the net result was an unfavourable balance on current account of £49.6 million.

In 1950–51, the favourable balance of trade rose to £236.0 million, the highest figure ever recorded. There was little change in invisible credits between 1949–50 and 1950–51, but there were increases of £37.7 million, £10.5 million and £8.0 million respectively in freight and insurance paid on imports, investment income payable overseas and government expenditure overseas. The value of donations and reparation payments fell by £7.7 million. As a result of these movements and minor fluctuations in other items a favourable balance of £84.3 million was achieved in 1950–51, and at 30th June, 1951 the value of Australia's international reserves stood at £843.0 million as compared with £273.5 million at 30th June, 1948.

The value of exports increased by £71.7 million between 1948–49 and 1949–50 and by a further £385.3 million between 1949–50 and 1950–51. Both movements were due mainly to increases in the value of wool exports, the recorded value of which rose by £81.8 million between 1948–49 and 1949–50 and by £322.3 million between 1949–50 and 1950–51. Most other exports experienced moderate increases between 1949–50 and 1950–51, but exports of butter and meats declined from their 1949–50 levels. Price rises have been much more important than volume changes in the increases in the value of Australia's exports in 1949–50 and 1950–51. The Commonwealth Statistician's Export Price Index (excluding gold) which stood at 348 (wool 365) in 1948–49 rose to 399 (wool 473) in 1949–50 and increased further to 690 (wool 999) in 1950–51.

There were no major changes in invisible credits in 1949–50 and 1950–51. The overall increase in these items was £11.2 million in 1949–50 and £5.2 million in 1950–51.

The value of Australia's imports increased by £123.0 million between 1948–49 and 1949–50 and by £204.8 million between 1949–50 and 1950–51. These increases were spread fairly generally over the main classes of imports. The increases were partly due to increased prices for imports, but increases in the volume of imports were responsible for most of the rise in the value of imports in 1949–50 and in 1950–51.

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* *See* Appendix to this volume for more recent figures.

AUSTRALIA : BALANCE OF PAYMENTS ON CURRENT ACCOUNT.

(£A. million.)

—	1948–49.		1949–50.		1950–51 (Preliminary).	
CREDITS.						
1. Exports, f.o.b.		521.9		593.6		978.9
2. Gold Production		9.4		11.7		12.8
3. Transportation—						
(a) Freight earnings of Australian Ships	1.5		1.4		1.5	
(b) Expenditure by Oversea Ships in Australian Ports	23.1		24.6		28.4	
		24.6		26.0		29.9
4. Foreign Travel		3.4		4.1		3.3
5. Income from Investment—						
(a) Direct Investment	1.2		1.5		1.5	
(b) Other	4.3		5.9		7.3	
		5.5		7.4		8.8
6. Government Transactions—						
(a) Recoveries from other Administrations	3.3		2.7		1.8	
(b) Other	1.7		2.1		4.0	
		5.0		4.8		5.8
7. Miscellaneous		5.7		6.3		6.2
8. Donations and Reparations—						
(a) Immigrants' Funds and Household Effects	10.6		14.0		13.7	
(b) Other	3.8		4.9		3.9	
		14.4		18.9		17.6
9. TOTAL CREDITS		589.9		672.8		1,063.3
DEBITS.						
10. Imports, f.o.b.		415.1		538.1		742.9
11. Transportation—						
(a) Freight on Imports	43.0		64.8		101.0	
(b) Insurance on Imports	2.9		3.8		5.3	
(c) Expenditure by Australian Ships in Oversea Ports	0.5		0.5		0.5	
		46.4		69.1		106.8
12. Foreign Travel		5.9		12.2		12.8
13. Income from Investment—						
(a) Public Authority Interest	19.7		19.1		18.5	
(b) Income from Direct Investment	12.2		13.3		14.3	
(c) Income from Portfolio Investment	4.4		5.8		6.2	
(d) Undistributed Income, etc.	8.5		20.3		30.0	
		44.8		58.5		69.0
14. Government Transactions—						
(a) Public Authority Defence Expenditure	6.3		2.9		8.6	
(b) Other	10.5		9.8		12.1	
		16.8		12.7		20.7
15. Miscellaneous		11.5		11.5		14.2
16. Donations and Reparations—						
(a) Gifts to United Kingdom	10.0		10.0		..	
(b) U.N.R.R.A., U.N.I.C.E.F. and International Post-war Relief	4.0		2.5		2.4	
(c) Other	7.2		7.8		10.2	
		21.2		20.3		12.6
17. TOTAL DEBITS		561.7		722.4		979.0
BALANCE ON CURRENT ACCOUNT		28.2		−49.6		84.3

Nearly all invisible debit items showed increases over the period 1948–49 to 1950–51. The largest increases were recorded in freight and insurance payments on imports and investment income payable overseas.

Freight and insurance on imports rose from £45.9 million in 1948–49 to £68.6 million in 1949–50 and to £106.3 million in 1950–51. The increase between 1948-49 and 1949–50 was mainly attributable to the increased volume of imports, but the rise between 1949–50 and 1950–51 was caused in the main by increases in freight rates which rose on the average by 30 per cent. between the two years.

Investment income payable overseas, which was £44.8 million in 1948–49, rose to £58.5 million in 1949–50 and increased further to £69.0 million in 1950–51. These increases were due mainly to movements in the value of item 13 (*d*)—Undistributed Income, etc. (*see* table on p. 509). The value of this item was £8.5 million in 1948–49, £20.3 million in 1949–50 and £30.0 million in 1950–51.

The value of donation and reparation payments fell by £7.7 million between 1949–50 and 1950–51. This was due mainly to the non-recurrence in 1950–51 of the gift of £10 million to the United Kingdom in 1949–50.

3. **Australia's Balance of Payments on Capital Account, 1948–49 to 1950–51.**—The table on p. 511 sets out estimates of Australia's balance of payments on capital account from 1948–49 to 1950–51.

The balance of payments on capital account records the net changes in Australia's international assets and liabilities in each year. Theoretically, the balance of payments on current account and the balance of payments on capital account together constitute a complete system of accounts on the double-entry principle recording Australia's international transactions in each year, and the favorable (unfavorable) balance on current account should coincide with the net increase (decrease) in assets shown in capital account.

In practice, because of various imperfections in the estimates, it is necessary to introduce an item "Errors and Omissions" (*see* table on page 511, item 22) in the capital account in order to make that account balance at the same figure as the current account.

These "errors and omissions" consist of errors in estimating the balance on current account, errors in estimating other items in the table, and other capital account transactions which cannot yet be accurately measured. This last group is considered to be by far the most important component of "errors and omissions" and in recent years is believed to consist mainly of various types of private capital movements.

The individual items in the table may be conveniently examined in groups.

Items 6 and 17 record transactions on capital account between the Joint Organization (Wool) and the Australian Wool Realization Commission. The assets item consists of the share of Joint Organization profits accruing to Australia each year and the liabilities item is the increase in Joint Organization investments in Australia in each year.

Items 7 and 19 record the payment of the increased Australian currency equivalent of the subscriptions to the International Monetary Fund and the International Bank for Reconstruction and Development following the devaluation of the Australian pound in September, 1949. Item 18 shows Australia's liability in respect of $20 million purchased from the Fund in 1949–50 and drawings of $9 million in 1950–51 under the $100 million loan from the International Bank.

Item 13 shows the substantial repayments of public authority debt domiciled overseas from 1948–49 to 1950–51. Item 14 should be read in conjunction with this item.

Australia's international reserves increased by £569.5 million during the three years 1948–49 to 1950–51 (*see* items 10, 11), their value at 30th June, 1951 being £843.0 million.

The main reason for this increase in international reserves may be found in a group of items (items 3, 4, 16, 20 (*a*) (ii), 20 (*b*) (ii), 21 and 22) which may be conveniently grouped as "other private capital movements (including errors and omissions in other items)".

Items 3, 4, 20 (*a*) (ii), 20 (*b*) (ii) and 21 are based on the results of a *Survey of Companies with Overseas Affiliations* which has been conducted annually by the Commonwealth Statistician since 1947–48. No results are available as yet for 1950–51 but it seems unlikely that the net capital inflow located by the Survey will exceed £120 million for the three years 1948–49 to 1950–51.

After allowing for other forms of long-term capital investment in Australia it appears that possibly £260 to £310 million of the "other private capital movements (including errors and omissions in other items)" which occurred from 1948–49 to 1950–51 was originally of a temporary and possibly speculative nature.

The remaining items in capital account are of minor importance only.

AUSTRALIA: BALANCE OF PAYMENTS ON CAPITAL ACCOUNT.

(£A. million.)

—	1948–49.	1949–50.	1950–51 (Preliminary).
INCREASE IN ASSETS.			
1. New Zealand Public Debt domiciled in Australia	− 0.8	− 0.4	..
2. Oversea Assets of National Debt Sinking Fund	0.1	..	..
3. Direct Investment Overseas—			
(*a*) Branches	0.3	− 0.5	(*a*)
(*b*) Subsidiaries	0.5	..	
4. Portfolio Investment Overseas	− 0.2	− 0.2	
5. Wool Credits to Czechoslovakia	..	0.6	− 1.2
6. Investment in Joint Organization, etc.	14.1	− 6.4	20.6
7. Subscription to I.M.F. and I.B.R.D.	..	31.0	..
8. Other Government Transactions	..	..	1.7
9. Commonwealth and State Government Bank Balances held Overseas with Trading Banks	− 0.2	0.1	..
10. Monetary Gold Holdings	− 0.1	(*b*) 0.5	4.6
11. Foreign Exchange Holdings	178.3	(*b*) 185.2	188.3
12. TOTAL INCREASE IN ASSETS	192.0	209.9	214.0
INCREASE IN LIABILITIES.			
13. Public Authority Debt—			
(*a*) Commonwealth—Long-term	0.2	− 4.8	− 1.9
(*b*) Commonwealth—Short-term	− 0.3	− 0.3	− 0.3
(*c*) States—Long-term	−11.8	−19.0	−17.7
(*d*) States—Short-term	..	..	..
(*e*) Local Authorities	− 1.4	− 5.9	− 0.3
14. Increases (−) in marketable Australian Securities held in London by the Commonwealth Bank	− 1.5	..	..
15. Discounts and Cash Bonuses on the Conversion of Public Debt	..	..	..
16. Australian Currency Holdings of Foreign Banks and Governments	2.8	46.6	− 4.0
17. Joint Organization Investments, etc., in Australia	31.5	0.1	23.1
18. Dollars received from I.M.F. and I.B.R.D.	..	8.9	4.0
19. Other transactions with I.M.F. and I.B.R.D.	..	31.0	..
20. Direct Investment in Australia—			
(*a*) Branches—			
(i) Unremitted Profits	0.7	7.5	10.0
(ii) Other	12.7	12.2	(*a*)
(*b*) Subsidiaries—			
(i) Undistributed Income	7.8	12.8	20.0
(ii) Other	14.8	27.9	(*a*)
21. Portfolio Investment in Australia	1.8	2.4	(*a*)
22. Errors and Omissions (including unidentified private capital movements)	106.5	140.1	96.8
23. TOTAL INCREASE IN LIABILITIES	163.8	259.5	129.7
24. NET INCREASE IN ASSETS	28.2	−49.6	84.3

(*a*) Not available. (*b*) Excludes increase due to revaluation of holdings following devaluation of the Australian pound in September, 1949.

4. **Australia's Balance of Payments on Current Account—Various Countries, 1949–50 and 1950–51.**—The overall improvement in the balance of payments on current account between 1949–50 and 1950–51 was £133.9 million and the regional statistics presented in the table on page 512 show that this improvement was concentrated mainly in the balance of payments with the dollar area and with non-sterling countries which were members of the Organization for European Economic Co-operation. These movements were offset to some extent by an increase in the unfavorable balance of payments with the sterling area.

5. **Australia's Balance of Payments with the Dollar Area, 1948–49 to 1950–51.**—The estimates of the balance of payments with the dollar area included in the table on page 512 are on a purely geographic basis. The more detailed estimates presented in the table on page 513 include, in addition, transactions with non-dollar areas which result in the receipt or payments of dollars by Australia. The statistics in this table are expressed in United States dollars.

Australia's estimated net drawings of dollars from the Sterling Area Dollar Pool which were $164 million in 1947–48 decreased to $73 million in 1948–49 and then fell to only $2 million in 1949–50. In 1950–51 Australia made a net contribution to the Pool of $101 million.

The main reason for the improvement in the dollar balance of payments between 1949–50 and 1950–51 was a favorable movement of $237 million in the balance of trade.

The value of exports to the United States of America and Canada increased by $237 million to $374 million. Of this increase $217 million was due to the increase in the value of wool exports to those countries.

Invisible credits declined from $23 million in 1948–49 to $19 million in 1950–51 while invisible debits increased from $96 million in 1948–49 to $115 million in 1950–51. The balance of trade, however, has been the main factor affecting the balance of payments on current account.

The most notable feature of the transactions on investment account from 1948–49 to 1950–51 shown in this table was the apparent outflow of private capital of $45 million in 1950–51—the first in the five years for which estimates are available.

The final section of the table shows how Australia's dollar surplus or deficit in each year was financed. After taking into account dollars received from international financial institutions, sales of gold to the United Kingdom and movements in Australia's dollar balances, Australia's transactions with the Sterling Area Dollar Pool showed an estimated improvement of $71 million between 1948–49 and 1949–50 and a further estimated improvement of $103 million between 1949–50 and 1950–51.

AUSTRALIA: BALANCE OF PAYMENTS ON CURRENT ACCOUNT—VARIOUS COUNTRIES.

(Payments –.) (£A. million.)

—	1949–50.				1950–51. (Preliminary.)			
	Exports f.o.b.	Imports f.o.b.	Invisibles.	Total Current Account.	Exports f.o.b.	Imports f.o.b.	Invisibles.	Total Current Account.
Sterling Area—								
United Kingdom ..	218.8	–287.0	–63.7	–131.9	315.9	–357.0	–85.2	–126.3
India	37.0	–27.9	– 1.7	7.4	22.0	–35.3	– 1.8	–15.1
Ceylon	6.1	– 9.0	– 0.7	– 3.6	9.0	–11.1	– 1.0	– 3.1
New Zealand ..	21.3	– 3.9	0.8	18.2	20.3	– 3.1	0.7	17.9
Malaya	5.6	– 4.9	– 0.1	0.6	8.2	–20.5	0.5	–11.8
Singapore	8.1	– 7.4	– 1.6	– 0.9	10.9	–10.3	– 3.3	– 2.7
South Africa ..	2.8	– 3.6	– 0.1	– 0.9	4.2	– 5.3	– 0.6	– 1.7
Other	29.3	–26.0	– 3.5	– 0.2	40.8	–41.7	– 7.8	– 8.7
Total Sterling Area	329.0	–369.7	–70.6	–111.3	431.3	–484.3	–98.5	–151.5
Dollar Area—								
United States of America	49.6	–54.9	–22.6	–27.9	149.8	–61.4	–26.2	62.2
Canada and Newfoundland	9.0	–13.7	– 3.5	– 8.2	17.2	–17.0	– 4.8	– 4.6
Other	2.5	– 0.2	– 0.2	2.1	3.6	– 0.1	– 0.2	3.3
Total Dollar Area ..	61.1	–68.8	–26.3	–34.0	170.6	–78.5	–31.2	60.9
Non-Sterling O.E.E.C. Countries—								
France (M.A.) ..	41.9	–11.0	– 1.3	29.6	92.5	–17.4	– 1.8	73.3
Belgium (M.A.) ..	27.6	– 5.1	– 0.7	21.8	48.6	–13.4	– 1.5	33.7
Italy	19.4	– 9.2	– 2.0	8.2	49.1	–16.6	– 3.9	28.6
Netherlands ..	9.9	– 3.4	0.6	7.1	11.3	– 8.4	– 0.2	2.7
Sweden	5.0	– 7.9	– 1.2	– 4.1	12.4	–16.3	– 3.2	– 7.1
Switzerland	1.6	– 2.8	– 0.4	– 1.6	2.3	– 4.9	– 0.7	– 3.3
Portugal (M.A.) ..	1.0	– 0.2	..	0.8	0.8	– 0.4	..	0.4
Norway	1.4	– 3.1	1.2	– 0.5	1.5	– 4.8	0.8	– 2.5
Western Germany ..	16.6	– 6.6	– 0.5	9.5	27.8	–14.7	– 1.6	11.5
Other	5.8	– 0.8	0.1	5.1	7.8	– 2.7	– 0.3	4.8
Total Non-Sterling O.E.E.C. Countries	130.2	–50.1	– 4.2	75.9	254.1	–99.6	–12.4	142.1
Other Non-Sterling Area—								
Czechoslovakia ..	3.1	– 4.5	– 0.3	– 1.7	3.7	– 6.0	– 0.6	– 2.9
Japan	23.2	– 7.1	– 0.4	15.7	60.6	–15.3	– 1.0	44.3
China	0.5	– 1.5	– 0.2	– 1.2	0.8	– 2.6	– 0.3	– 2.1
Egypt	9.7	– 0.2	0.1	9.6	22.5	– 1.5	– 0.1	20.9
Russia	11.2	– 0.7	– 0.2	10.3	8.4	– 0.6	– 0.1	7.7
Finland	1.5	– 1.4	– 0.5	– 0.4	0.2	– 3.0	– 1.0	– 3.8
Poland	13.2	– 0.2	..	13.0	14.8	– 0.4	..	14.4
Other	10.9	–33.9	–10.8	–33.8	11.9	–51.1	–16.3	–55.5
Total Other Non-Sterling Area ..	73.3	–49.5	–12.3	11.5	122.9	–80.5	–19.4	23.0
International Bodies ..	..	..	– 3.4	– 3.4	..	..	– 3.0	– 3.0
Gold Production ..	..	..	11.7	11.7	..	..	12.8	12.8
Grand Total ..	593.6	–538.1	–105.1	–49.6	978.9	–742.9	–151.7	84.3

AUSTRALIA: BALANCE OF PAYMENTS WITH THE DOLLAR AREA (UNITED STATES DOLLARS).

(Credit Items +, Debit Items −).

—	1948–49.	1949–50.	1950–51. (Preliminary.)
CURRENT ACCOUNT.	United States $ million.	United States $ million.	United States $ million.
Merchandise Trade.			
1. Merchandise exports f.o.b. to United States of America and Canada	+ 132	+ 137	+ 374
2. Merchandise imports f.o.b. from United States of America and Canada	− 181	− 173	− 176
3. Trade balance with United States of America and Canada	− 49	− 36	+ 198
4. Trade balance with other American account countries ..	+ 4	+ 5	+ 8
5. Trade balance with the Dollar Area	− 45	− 31	+ 206
Other Current Transactions.			
6. Freight on imports	−26.7	−24.3	−26.8
7. Insurance on imports	− 2.1	− 1.9	− 1.9
8. Expenditure by Australian travellers	− 2.2	− 2.6	− 2.2
9. Expenses of Australian companies in North America ..	− 2.7	− 4.3	− 5.2
10. Film remittances	− 3.6	− 3.6	− 5.0
11. Profits and dividends remitted	− 9.3	− 8.2	− 9.6
12. Undistributed income accruing to companies incorporated in dollar area	− 7.1	−13.9	−13.4
13. Public authority interest payments	− 9.2	− 9.1	− 8.5
14. Lend-Lease settlement and purchase of United States surpluses	..	..	..
15. Other miscellaneous debits	−32.9	−37.5	−42.0
16. Miscellaneous credits	+23.0	+22.2	+18.9
17. Invisible balance with the Dollar Area	− 73	− 83	− 96
18. Balance on current account	− 118	− 114	+ 110
INVESTMENT ACCOUNT.			
19. Increase in debt of public authorities..	− 2	− 11	− 3
20. Undistributed income (see item 12)	+ 7	+ 14	+ 13
21. Identified private capital inflow	+ 12	+ 14	} − 45(*a*)
22. Errors and omissions (mainly capital movements) ..	− 2	+ 49	
23. Balance on Investment Account	+ 15	+ 66	− 35
24. Dollar Surplus or Deficit	− 103	− 48	+ 75
DOLLAR FINANCING.			
25. Dollar drawings from I.M.F. and I.B.R.D.	..	+ 20	+ 9
26. Gold Sales to United Kingdom	+ 32	+ 30	+ 21
27. Estimated dollar drawings from or contributions to (−) Sterling Area Dollar Pool	+ 73	+ 2	− 101
28. Movement in Australian dollar balances (increase −) ..	− 2	− 4	− 4
29. Total	+ 103	+ 48	− 75

(*a*) No estimate is available yet for identified private capital inflow in 1950–51.

§ 18. Interstate Trade.

Prior to the federation of the Australian Colonies (now States), each Colony published statistics of its trade with the other Colonies. A similar record was continued by the Commonwealth Government under the provisions of the Constitution (Section 93). On the expiry of the "book-keeping" period, these records were discontinued as from 13th September, 1910, and the latest published statements were for the year 1909. Later, the Governments of Western Australia and Tasmania revived the records, and relevant statistics are available again for those States.

At the Conference of Statisticians held in January, 1928 it was resolved that efforts should be made in other States to record the interstate movement of certain principal commodities.

The Government Statist for South Australia publishes some figures for that State made up from the records of Western Australia and Tasmania, and from various other sources. Since February, 1940, statistics in some detail have been collected by the Government Statistician of Queensland. The statistics of interstate trade for New South Wales and Victoria are very meagre. The Melbourne Harbour Trust publishes, in its annual report, the quantities of various commodities of interstate trade loaded and discharged in the Port of Melbourne. The trade with individual States is not disclosed.

CHAPTER XIII.

POPULATION.

§ 1. Population Statistics.

Population statistics relating to Australia or to the component States and Territories as at specific dates are of two types—

(i) *Those ascertained by census enumeration.* These results attain a very high degree of accuracy and may generally be accepted without reservation.

(ii) *Estimates derived by the application of vital and migration statistics to census data.* In general, three estimates are made for any specific date:

- (*a*) Original estimates for dates subsequent to a census made before another census is taken.
- (*b*) Two-stage revision of the original estimates for each newly completed intercensal period to adjust for the difference between the new census result and the comparable estimate. This is to bring intercensal estimates into line with the two census populations. The first revision is reconciled with preliminary census results and the second revision with final census results.

Final revised figures become the permanent population estimates. For purposes requiring a mean population for any twelve-monthly period such mean is calculated as described in § 4. As populations at specific dates are used in these calculations consequential revisions are made in mean populations when the estimates for specific dates are revised as described above.

In accordance with this policy all population statistics shown in this Year Book for dates up to 30th June 1947, and all mean populations for calendar years up to 1946 and financial years up to 1946–47 are final. Population statistics for dates or years subsequent to these are subject to revision when another census is taken.

Since the establishment of the Commonwealth Bureau of Census and Statistics the populations of the States and Territories have been estimated in a comparable manner and attention has been given to the improvement of the basic demographic data from which the estimates are compiled. The principal source of error in early estimates lay in the migration records, both oversea and interstate, and efforts were directed towards their improvement. The 1911 Census disclosed an error in the precensal estimates equivalent to a proportion of 14.5 per cent. and 10.0 per cent., respectively, of recorded male and female oversea departures from Australia. These proportions were used as adjusting factors to recorded oversea departures during the intercensal period 1911–21. These adjusting factors were reduced after the 1921 Census to 1 per cent. for males and 4.5 per cent. for females and were discontinued altogether after the 1933 Census. From the results of the 1947 Census it would again appear that the accuracy of the records of oversea migration is such that in future little adjustment to recorded figures will be necessary for Australia as a whole.

It is improbable that the same degree of accuracy as has been attained in the record of oversea migration can be reached in the case of interstate movements. Records are made of interstate passengers by sea, rail and air, but it is impracticable, with occasional important exceptions, to record the movements by road.

§ 2. The Census.

1. **Census-taking.**—Although "musters" of the population were carried out at least annually from 1788 to 1825, the first regular Census in Australia was not taken until 1828 when a count of the population of the Colony of New South Wales was made. Subsequent Censuses were taken sporadically in the various colonies until 1881, when a Census was taken on the same date throughout Australia.

In 1891 and 1901 Census-taking was still in the hands of the Government Statisticians of the States, but, in 1911, under the provisions of the Commonwealth Census and Statistics Act, which provides for the enumeration to be made from one centre instead of by each State as formerly, the Commonwealth Statistician undertook the first Census for the Commonwealth of Australia. The second was taken in 1921 and the third should have been taken in 1931, but, because of restrictions on Governmental expenditure at that time, was deferred until 30th June, 1933.

Owing to the 1939–45 War, the fourth Commonwealth Census, due to be taken in 1941, was deferred until June, 1947, the Census for the whole of Australia being taken as or the night between 29th and 30th June, 1947.

2. **Population recorded at Censuses.**—State and Territorial totals recorded at the Censuses taken over the period 1828 to 1947 are shown in the following table. The figures relate to the political boundaries of the several States (or Colonies) as they existed at the date of each Census except that Northern Territory has been shown separately from South Australia for three censuses prior to its transfer from that State. The years of formation of the separate Colonies and transfer of the Territories are shown in Chapter I, § 3. and § 4.

POPULATION : AUSTRALIAN CENSUSES, 1828 TO 1947.

Census Year.	Population Enumerated (Excluding Full-blood Aboriginals).								
	New South Wales.	Victoria.	Queensland.	South Australia.	Western Australia.	Tasmania.	Nor. Terr.	Aust. Cap. Terr.	Australia.
1828..	(Nov.) 36,598	..	..	..	..	..	..	..	..
1833..	(2nd Sept.) 60,794	..	..	..	..	..	..	..	..
1836..	(2nd Sept.) 77,096	..	..	..	..	..	..	..	..
1841..	(2nd Mar.) 128,669	..	..	..	..	(27th Sept.) 50,216	..	..	..
1844..	..	..	..	(26th Feb.) 17,366	..	..	..	..	..
1846..	(2nd Mar.) 189,609	..	..	(26th Feb.) 22,390	..	..	..	..	..
1847..	..	..	..	..	..	(31st Dec.) 70,164	..	..	..
1848..	..	..	..	..	(10th Oct.) 4,622	..	..	..	..
1851..	(1st Mar.) 268,344	..	..	(1st Jan.) 63,700	..	(1st Mar.) 70,130	..	..	..
1854..	..	(26th April) (*a*)234,928	..	..	(30th Sept.) 11,743	..	..	..	..
1855..	..	..	..	(31st Mar.) 85,821	..	..	..	..	..
1856..	(1st Mar.) 269,722	..	..	..	..	..	..	..	..
1857..	..	(29th Mar.) 408,998	..	..	..	(31st Mar.) 81,492	..	..	..
1859..	..	..	..	..	(31st Dec.) 14,837	..	..	..	..
1861..	(7th April) 350,860	(7th April) 538,628	(7th April) (*a*) 30,059	(7th April) 126,830	..	(7th April) 89,977	..	..	..
1864..	..	..	(1st Jan.) 61,467	..	..	..	..	..	..
1866..	..	..	..	(26th Mar.) 163,452	..	..	..	..	..
1868..	..	..	(2nd Mar.) 99,901	..	..	..	..	..	..
1870..	..	..	..	..	(31st Mar.) 24,785	(7th Feb.) 99,328	..	..	..
1871..	(2nd April) 502,998	(2nd April) 730,198	(1st Sept.) 120,104	(2nd April) 185,626	..	..	..	..	..
1876..	..	..	(1st May) 173,283	(26th Mar.) 213,271	..	..	..	..	..
1881(*b*)	749,825	861,566	213,525	276,414	29,708	115,705	(*c*)3,451	..	2,250,194
1886..	..	..	(1st May) 322,853	..	..	..	..	..	..
1891(*d*)	1,127,137	1,140,088	393,718	315,533	49,782	146,667	4,898	..	3,177,823
1901(*e*)	1,354,846	1,201,070	498,129	358,346	184,124	172,475	4,811	..	3,773,801
1911(*b*)	1,646,734	1,315,551	605,813	408,558	282,114	191,211	3,310	(*a*) 1,714	4,455,005
1921(*f*)	2,100,371	1,531,280	755,972	495,160	332,732	213,780	3,867	2,572	5,435,734
1933(*g*)	2,600,847	1,820,261	947,534	580,949	438,852	227,599	4,850	8,947	6,629,839
1947(*g*)	2,984,838	2,054,701	1,106,415	646,073	502,480	257,078	10,868	16,905	7,579,358

(*a*) Previously included with New South Wales. (*b*) 3rd April. (*c*) Previously included with South Australia. Actually Northern Territory was not transferred to the Commonwealth until 1st January, 1911. (*d*) 5th April. (*e*) 31st March. (*f*) 4th April. (*g*) 30th June.

For the last two Censuses the population of each sex in each State and Territory was as follows :—

POPULATION OF STATES AND TERRITORIES : 1933 AND 1947 CENSUSES.

(EXCLUDING FULL-BLOOD ABORIGINALS.)

State or Territory.	30th June, 1933.			30th June, 1947.		
	Males.	Females.	Persons.	Males.	Females.	Persons.
New South Wales ..	1,318,471	1,282,376	2,600,847	1,492,211	1,492,627	2,984,838
Victoria	903,244	917,017	1,820,261	1,013,867	1,040,834	2,054,701
Queensland.. ..	497,217	450,317	947,534	567,471	538,944	1,106,415
South Australia ..	290,962	289,987	580,949	320,031	326,042	646,073
Western Australia ..	233,937	204,915	438,852	258,076	244,404	502,480
Tasmania	115,097	112,502	227,599	129,244	127,834	257,078
Northern Territory ..	3,378	1,472	4,850	7,378	3,490	10,868
Australian Capital Territory.. ..	4,805	4,142	8,947	9,092	7,813	16,905
Australia ..	3,367,111	3,262,728	6,629,839	3,797,370	3,781,988	7,579,358

The results of the 1947 Census of the Australian External Territories will be found in § 12 of this chapter.

The population of each sex enumerated in Australia as a whole at each Census since 1881 was as follows :—

POPULATION OF AUSTRALIA AT EACH CENSUS, 1881 TO 1947.

(EXCLUDING FULL-BLOOD ABORIGINALS.)

Date.	Males.	Females.	Persons.
3rd April, 1881	1,214,913	1,035,281	2,250,194
5th April, 1891	1,705,835	1,471,988	3,177,823
31st March, 1901	1,977,928	1,795,873	3,773,801
3rd April, 1911	2,313,035	2,141,970	4,455,005
4th April, 1921	2,762,870	2,672,864	5,435,734
30th June, 1933..	3,367,111	3,262,728	6,629,839
30th June, 1947..	3,797,370	3,781,988	7,579,358

3. **Increase since 1881 Census.**—The increases in the populations of the several States and Territories and of Australia as a whole during the last six intercensal periods were as shown in the following table, which distinguishes the numerical increases, the proportional increases (which do not allow for the differences in the length of the intercensal periods) and the average annual rates of increase.

POPULATION : INTERCENSAL INCREASES.

(EXCLUDING FULL-BLOOD ABORIGINALS.)

NUMERICAL INCREASE.

State or Territory.	1881–1891 (10 years).	1891–1901 (10 years).	1901–1911 (10 years).	1911–1921 (10 years).	1921–1933 (12½ years).	1933–1947 (14 years).
New South Wales ..	(a)377,312	(a)227,709	(a)293,602	453,637	500,476	383,991
Victoria	278,522	60,982	114,481	215,729	288,981	234,440
Queensland	180,193	104,411	107,684	150,159	191,562	158,881
South Australia ..	39,119	42,813	50,212	86,602	85,789	65,124
Western Australia ..	20,074	134,342	97,990	50,618	106,120	63,628
Tasmania	30,962	25,808	18,736	22,569	13,819	29,479
Northern Territory ..	1,447	−87	−1,501	557	983	6,018
Aust. Cap. Territory ..	(b)	(b)	(b)	858	6,375	7,958
Australia ..	927,629	595,978	681,204	980,729	1,194,105	949,519

PROPORTIONAL INCREASE—PER CENT.

State or Territory.	1881–1891 (10 years).	1891–1901 (10 years).	1901–1911 (10 years).	1911–1921 (10 years).	1921–1933 (12½ years).	1933–1947 (14 years).
New South Wales ..	50.32	20.20	21.67	27.55	23.83	14.76
Victoria	32.33	5.35	9.53	16.40	18.87	12.88
Queensland	84.39	26.52	21.62	24.79	25.34	16.77
South Australia ..	14.15	13.57	14.01	21.20	17.33	11.21
Western Australia ..	67.57	269.86	53.22	17.94	31.89	14.50
Tasmania	26.76	17.60	10.86	11.80	6.46	12.95
Northern Territory ..	41.93	−1.78	−31.20	16.83	25.42	124.08
Aust. Cap. Territory ..	(b)	(b)	(b)	50.06	247.86	88.95
Australia ..	41.22	18.75	18.05	22.01	21.97	14.32

AVERAGE ANNUAL RATE OF INCREASE—PER CENT.

State or Territory.	1881–1891 (10 years).	1891–1901 (10 years).	1901–1911 (10 years).	1911–1921 (10 years).	1921–1933 (12½ years).	1933–1947 (14 years).
New South Wales ..	4.16	1.86	1.97	2.46	1.76	0.99
Victoria	2.84	0.52	0.91	1.53	1.42	0.87
Queensland	6.31	2.38	1.98	2.24	1.86	1.11
South Australia ..	1.33	1.28	1.32	1.94	1.31	0.76
Western Australia ..	5.30	13.97	4.36	1.66	2.29	0.97
Tasmania	2.40	1.63	1.04	1.12	0.51	0.87
Northern Territory ..	3.56	−0.18	−3.67	1.57	1.87	5.93
Aust. Cap. Territory ..	(b)	(b)	(b)	4.14	10.71	4.65
Australia	3.51	1.73	1.67	2.01	1.63	0.96

(a) Includes Australian Capital Territory. (b) Part of New South Wales prior to 1911.
NOTE.—Minus sign (−) denotes decrease.

The numerical increase during the period 1933–47 (14 years) was less by 244,586 than that for the period 1921–33 (12½ years) and the percentage increase declined from 21.97 for 1921–33 to 14.32 for 1933–47. During the earlier period the increase corresponds to 1.63 per cent. per annum, and in the latter to 0.96 per cent. per annum.

§ 3. Growth and Distribution of Population.

1. **Growth of Population.**—The table which follows shows the growth in the population of each sex in the various States and Territories as measured by the estimated population at 31st December in 1788 and thereafter at decennial intervals from 1790 to 1950. Each year of the last decennium is included in order to show recent fluctuations in greater detail.

ESTIMATED POPULATION : 1788 TO 1950.

(EXCLUDING FULL-BLOOD ABORIGINALS.)

As at 31st Dec.—	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Nor. Terr.	Aust. Cap. Terr.	Australia.
MALES.									
1788	(a)	..	..	..	..	..	..	..	(a)
1790	(a)	..	..	..	..	..	..	..	(a)
1800	3,780	..	..	..	..	..	..	..	3,780
1810	6,611	..	..	..	..	974	..	..	7,585
1820	19,626	..	..	..	..	4,158	..	..	23,784
1830	33,900	..	..	..	877	18,108	..	..	52,885
1840	85,560	..	..	8,272	1,434	32,040	..	..	127,306
1850	154,976	..	..	35,902	3,576	44,229	..	..	238,683
1860	197,851	(b) 330,302	(b) 16,817	64,340	9,597	49,653	..	..	668,560
1870	272,121	397,230	69,221	94,894	15,511	53,517	..	..	902,494
1880	404,952	450,558	124,013	147,438	16,985	60,568	..	..	1,204,514
1890	602,704	595,519	223,252	166,049	28,854	76,453	..	..	1,692,831
1900	716,047	601,773	274,684	180,349	110,088	89,763	(c) 4,288	..	1,976,992
1910	858,181	646,482	325,513	206,557	157,971	98,866	2,738	..	2,296,308
1920	1,067,945	753,803	396,555	245,300	176,895	107,259	2,911	(b) 1,062	2,751,730
1930	1,294,419	892,422	481,559	288,618	232,868	113,505	3,599	4,732	3,311,722
1940*d*	1,402,297	947,037	536,712	297,885	248,734	123,650	6,337	7,856	3,570,508
1941*d*	1,410,509	964,619	537,879	301,645	246,842	122,153	7,264	7,733	3,598,644
1942*d*	1,427,739	970,729	534,767	303,511	246,816	122,440	6,056	7,641	3,619,699
1943*d*	1,436.177	979,549	542,738	305,655	246,389	123,067	7,216	7,368	3,648,159
1944*d*	1,449,551	986,889	548,848	308,853	249,301	124,293	7,235	7,825	3,682,795
1945*d*	1,464,686	994,784	556,829	312,588	251,590	125,854	7,252	8,283	3,721,866
1946*d*	1,480,644	1,006,395	563,013	317,238	255,310	128,007	7,263	8,819	3,766,689
1947	1,504,350	1,016,950	569,480	324,055	261,689	135,674	7,403	(e) 9,270	3,828,871
1948	1,531,990	1,040,640	580,030	331,058	268,384	140,286	8,065	(e) 9,598	3,910,051
1949	1,594,724	1,073,298	594,154	342,937	280,457	145,838	8,728	e 10,409	4,050,545
1950	1,649,479	1,116,963	609,666	355,387	295,102	150,471	9,521	e 10,051	4,196,640
FEMALES.									
1788	(a)	..	..	..	..	..	..	..	(a)
1790	(a)	..	..	..	..	..	..	..	(a)
1800	1,437	..	..	..	..	..	..	..	1,437
1810	3,485	..	..	..	..	496	..	..	3,981
1820	8,398	..	..	..	..	1,361	..	..	9,759
1830	10,688	..	..	..	295	6,171	..	..	17,154
1840	41,908	..	..	6,358	877	13,959	..	..	63,102
1850	111,924	..	..	27,798	2,310	24,641	..	..	166,673
1860	150,695	(b) 207,932	(b) 11,239	61,242	5,749	40,168	..	..	477,025
1870	225,871	326,695	46,051	89,652	9,624	47,369	..	..	745,262
1880	336,190	408,047	87,027	128,955	12,576	54,222	..	..	1,027,017
1890	510,571	538,209	168,864	152,898	19,648	68,334	..	..	1,458,524
1900	644,258	594,440	219,163	176,901	69,879	83,137	(c) 569	..	1,788,347
1910	785,674	654,926	273,503	200,311	118,861	94,937	563	..	2,128,775
1920	1,023,777	774,106	354,069	245,705	154,428	105,493	1,078	(b) 910	2,659,567
1930	1,251,934	900,183	435,177	285,849	198,742	111,792	1,365	3,987	3,189,029
1940*d*	1,388,651	967,881	494,740	301,171	225,342	120,352	2,637	6,304	3,507,078
1941*d*	1,402,547	981,806	500,592	304,721	226,371	119,982	2,505	6,430	3,544,954
1942*d*	1,420,401	991,829	503,158	307,467	229,839	119,997	2,235	6,471	3,581,397
1943*d*	1,434,534	1,002,067	511,846	310,372	231,875	121,186	3,189	6,430	3,621,499
1944*d*	1,451,488	1,011,065	519,407	314,177	235,474	122,596	3,242	6,780	3,664.229
1945*d*	1,468,312	1,020,323	528,035	318,294	238,498	124,426	3,294	7,149	3,708,331
1946*d*	1,481,748	1,033,374	533,818	323,180	241,663	126,563	3,379	7,567	3,751,292
1947	1,503,232	1,044,739	541,341	329,010	247,192	132,841	3,588	(e) 7,814	3,809,757
1948	1,530,354	1,065,675	552,535	334,869	253,946	134,856	4,429	(e) 8,165	3,884,829
1949	1,581,211	1,091,033	566,146	344,936	264,358	138,407	5,122	(e) 9,124	4,000,337
1950	1,628,547	1,114,293	581,579	356,623	278,569	143,926	5,611	e 10,003	4,119,151

(*a*) Details as to sex not available. (*b*) Previously included with New South Wales. (*c*) Previously included with South Australia in which Northern Territory was incorporated prior to 1911. (*d*) *See* note (*c*) on next page. (*e*) Revised estimates based on the results of the Census of Canberra on 14th—16th September, 1951, are as follows :—1947, M. 9,714, F. 7,874 ; 1948, M. 10,943, F. 8,369 ; 1949, M. 12,577, F. 9,536 ; and 1950, M. 13,049, F. 10,580.

ESTIMATED POPULATION : 1788 TO 1950—*continued.*

As at 31st Dec.—	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Nor. Terr.	Aust. Cap. Terr.	Australia.
					PERSONS.				
1788	859	..	..	..	..	..	..	..	859
1790	2,056	..	..	..	..	..	..	..	2,056
1800	5,217	..	..	..	..	..	..	..	5,217
1810	10,096	..	..	..	..	1,470	..	..	11,566
1820	28,024	..	..	..	..	5,519	..	..	33,543
1830	44,588	..	..	..	1,172	24,279	..	..	70,039
1840	127,468	..	..	14,630	2,311	45,999	..	..	190,408
1850	266,900	..	..	63,700	5,886	68,870	..	..	405,356
1860	348,546	(*a*)538,234	(*a*)28,056	125,582	15,346	89,821	..	..	1,145,585
1870	497,992	723.925	115,272	184,546	25.135	100,886	..	..	1,647,756
1880	741,142	858,605	211,040	276,393	29,561	114,790	..	..	2,231,531
1890	1,113,275	1,133,728	392,116	318,947	48,502	144,787	..	..	3,151,355
1900	1,360,305	1,196,213	493,847	357,250	179,967	172,900	(*b*)4,857	..	3,765,339
1910	1,643,855	1,301,408	599,016	406,868	276,832	193,803	3,301	..	4,425,083
1920	2,091,722	1,527,909	750,624	491,006	331,323	212,752	3,989	(*a*)1,972	5,411,297
1930	2,546,353	1,792,605	916,736	574,467	431,610	225,297	4,964	8,719	6,500,751
1940*c*	2,790,948	1,914,918	1,031,452	599,056	474,076	244,002	8,974	14,160	7,077,586
1941*c*	2,813,056	1,946,425	1,038,471	606,366	473,213	242,135	9,769	14,163	7,143,598
1942*c*	2,848,140	1,962,558	1,037,925	610,978	476,655	242,437	8,291	14,112	7,201,096
1943*c*	2,870,711	1,981.616	1,054,584	616,027	478,264	244,253	10,405	13,798	7,269,658
1944*c*	2,901,039	1,997,954	1,068,255	623,030	484,775	246,889	10,477	14,605	7,347,024
1945*c*	2,932,998	2,015,107	1,084,864	630,882	490,088	250,280	10,546	15,432	7,430,197
1946*c*	2,962,392	2,039,769	1,096,831	640,418	496,973	254,570	10,642	16,386	7,517,981
1947	3,007,582	2,061,689	1,110,821	653,065	508,881	268,515	10,991	*d* 17,084	7.638,628
1948	3,062,344	2,106,315	1,132,565	665,927	522,330	275,142	12,494	*d* 17,763	7,794,880
1949	3,175,935	2,164,331	1,160,300	687,873	544,815	284,245	13,850	*d* 19,533	8,050,882
1950	3,278,026	2,231,256	1,191,245	712,010	573,671	294,397	15,132	*d* 20,054	8,315,791

(*a*) Previously included with New South Wales. (*b*) Previously included with South Australia in which Northern Territory was incorporated prior to 1911. (*c*) Includes all defence personnel enlisted in Australia irrespective of movements subsequent to enlistment. (*d*) Revised estimates based on the results of the Census of Canberra on 14th—16th September, 1951, are as follows :—1947, 18,838 ; 1948, 19,312 ; 1949, 22,113 ; and 1950, 23,629.

Estimates of population for intercensal years are obtained in the manner outlined in § 1. Figures for interstate migration are liable to error owing to the impracticability of tracing movements of motor traffic. The estimates of populations of the Australian Capital Territory and the Northern Territory are particularly affected by this difficulty. In view of the uncertainty of war-time records of interstate migration, the populations of the States subsequent to 30th June, 1943, and until the 1947 Census, were estimated on the basis of natural increase, deaths of defence personnel and oversea migration.

The estimated population as at 31st December each year from 1788 to 1950 on the same basis as in the last table is shown in *Demography Bulletin* No. 68, 1950. A graph illustrating the growth of the population of Australia and of each State and Territory thereof appears on page 539.

2. **Present Numbers.**—The population of Australia on 31st December, 1950 was estimated at 8,315,791 persons of whom 4,196,640, or 50.47 per cent., were males and 4,119,151, or 49.53 per cent., were females. The increase during 1950 was 264,909, equal to 3.29 per cent., males having increased by 146,095 or 3.61 per cent., and females by 118,814, or 2.97 per cent. This increase was due to an excess of births over deaths, of 112,404, together with a net gain by migration of 152,505 persons.

3. **Proportion of Area and Population, Density and Masculinity.**—A previous table shows the estimated number of persons in each of the States and Territories on 31st December, 1950. In the following table the proportions of the total area and of the total population represented by each State or Territory are given, together with the density and the masculinity of population :—

DENSITY AND MASCULINITY OF POPULATION, 1950.

(EXCLUDING FULL-BLOOD ABORIGINALS.)

State or Territory.	Proportion of Total Area.	Proportion of Estimated Population, 31st December, 1950.			Density. (a)	Masculinity. (b)
		Males.	Females.	Persons.		
	%	%	%	%		
New South Wales	10.40	39.30	39.54	39.42	10.59	101.29
Victoria	2.96	26.62	27.05	26.83	25.39	100.24
Queensland	22.54	14.53	14.12	14.33	1.78	104.83
South Australia	12.78	8.47	8.66	8.56	1.87	99.65
Western Australia	32.81	7.03	6.76	6.90	0.59	105.93
Tasmania	0.88	3.58	3.49	3.54	11.23	104.55
Northern Territory ..	17.60	0.23	0.14	0.18	0.03	169.67
Australian Capital Territory ..	0.03	0.24	0.24	0.24	21.36	100.48
Australia	100.00	100.00	100.00	100.00	2.80	101.88

(a) Average number of persons per square mile. (b) Number of males per 100 females.

Additional information regarding density and masculinity of population appears in later sections of this chapter.

4. **Urban and Rural Distribution.**—At the 1947 Census, information was obtained regarding the distribution of the population amongst metropolitan, provincial and rural areas. Metropolitan Divisions relate to the capital cities of the States and adjoining urban municipal areas within boundaries used for Census purposes at the dates of the respective Censuses. At the 1947 Census the Metropolitan Division of Victoria included areas (with a population of 30,490 persons) not included in that division at the 1933 Census when the population was 991,934. No changes occurred in boundaries of Metropolitan Divisions in other States.

Urban Provincial Divisions comprise the capital cities of the Territories and, in States other than Tasmania, cities and towns outside the Metropolitan Divisions which are separately incorporated. In Tasmania, where most of the towns included are not separately incorporated, boundaries were determined for Census purposes. In New South Wales a number of towns which in 1933 were separately incorporated have since been included in shires.

Rural Divisions comprise the remaining portion of each Territory and State and are affected by the intercensal changes in the areas of the Metropolitan and Urban Provincial Divisions. Figures for Rural Divisions represent therefore only a broad general classification based on administrative rather than geographical considerations. For instance, in New South Wales most of the increase in population shown for "Rural Division" was due to abolition of municipalities which in 1933 were classified as Urban Provincial; in Victoria a large part of the decrease in population shown for "Rural Division" was due to transfer in 1947 to the Metropolitan Division of adjoining urban parts of shire areas.

Persons on board ships in Australian ports or travelling on long-distance trains or planes throughout Census night were classed as migratory.

The results obtained at the Census for each State and Territory are shown in the following table :—

URBAN AND RURAL POPULATION : 1947 CENSUS.

(EXCLUDING FULL-BLOOD ABORIGINALS.)

Division.	1947 Census.			Proportion of Total Population of State.		Proportionate Increase since the 1933 Census.
	Males.	Females.	Persons.	1933 Census.	1947 Census.	
NEW SOUTH WALES.						
Urban—				%	%	%
Metropolitan	714,821	769,183	1,484,004	47.50	49.72	20.14
Provincial ..	329,730	332,226	661,956	21.74	22.18	17.07
Rural ..	441,024	390,512	831,536	30.57	27.86	4.58(*a*)
Migratory ..	6,636	706	7,342	0.19	0.24	45.70
Total ..	1,492,211	1,492,627	2,984,838	100.00	100.00	14.76
VICTORIA.						
Urban—				%	%	%
Metropolitan	588,540	637,869	1,226,409	54.49	59.69	23.64
Provincial ..	111,182	120,261	231,443	10.89	11.26	16.78
Rural ..	311,052	281,946	592,998	34.53	28.86	−5.66*a*
Migratory ..	3,093	758	3,851	0.09	0.19	144.04
Total ..	1,013,867	1,040,834	2,054,701	100.00	100.00	12.88
QUEENSLAND.						
Urban—				%	%	%
Metropolitan	195,102	206,928	402,030	31.63	36.34	34.12
Provincial ..	127,854	131,074	258,928	21.02	23.40	30.02
Rural ..	242,807	200,763	443,570	46.92	40.09	− 0.23
Migratory ..	1,708	179	1,887	0.43	0.17	−53.44
Total ..	567,471	538,944	1,106,415	100.00	100.00	16.77
SOUTH AUSTRALIA.						
Urban—				%	%	%
Metropolitan	183,099	199,355	382,454	53.81	59.20	22.34
Provincial ..	32,646	33,265	65,911	8.86	10.20	28.09
Rural ..	102,760	93,247	196,007	36.97	30.34	− 8.73
Migratory ..	1,526	175	1,701	0.36	0.26	−19.46
Total ..	320,031	326,042	646,073	100.00	100.00	11.21

(*a*) *See* letterpress on preceding page.

NOTE.—Minus sign (−) denotes decrease.

URBAN AND RURAL POPULATION, ETC.—*continued.*

Division.	1947 Census.			Proportion of Total Population of State.		Proportionate Increase since the 1933 Census.
	Males.	Females.	Persons.	1933 Census.	1947 Census.	
			WESTERN AUSTRALIA.			
Urban—				%	%	%
Metropolitan	131,670	140,858	272,528	47.27	54.24	31.38
Provincial ..	26,279	25,521	51,800	10.21	10.31	15.61
Rural ..	97,475	77,696	175,171	41.79	34.86	−4.49
Migratory ..	2,652	329	2,981	0.73	0.59	−6.79
Total ..	258,076	244,404	502,480	100.00	100.00	14.50
			TASMANIA.			
Urban—				%	%	%
Metropolitan	36,518	40,016	76,534	26.54	29.77	26.70
Provincial ..	36,291	38,525	74,816	24.95	29.10	31.77
Rural ..	55,771	49,254	105,025	48.23	40.85	−4.32
Migratory ..	664	39	703	0.28	0.28	8.32
Total ..	129,244	127,834	257,078	100.00	100.00	12.95
			NORTHERN TERRITORY.			
Urban—				%	%	%
Provincial ..	1,668	870	2,538	32.29	23.36	62.07
Rural ..	5,581	2,611	8,192	66.16	75.37	155.22
Migratory ..	129	9	138	1.55	1.27	84.00
Total ..	7,378	3,490	10,868	100.00	100.00	124.08
			AUSTRALIAN CAPITAL TERRITORY.			
Urban—				%	%	%
Provincial ..	8,121	7,035	15,156	81.87	89.65	106.91
Rural ..	971	778	1,749	18.13	10.35	7.83
Migratory ..	..	..	..	..	..	..
Total ..	9,092	7,813	16,905	100.00	100.00	88.95
			AUSTRALIA.			
Urban—				%	%	%
Metropolitan	1,849,750	1,994,209	3,843,959	46.87	50.72	23.70
Provincial ..	673,771	688,777	1,362,548	16.97	17.98	21.15
Rural ..	1,257,441	1,096,807	2,354,248	35.91	31.06	−1.12
Migratory ..	16,408	2,195	18,603	0.25	0.24	11.37
Total ..	3,797,370	3,781,988	7,579,358	100.00	100.00	14.32

NOTE.—Minus sign (−) denotes decrease.

At 30th June, 1947, the Metropolitan Divisions contained 50.72 per cent. of the total population of Australia as compared with 46.87 per cent. at the 1933 Census. Victoria had the largest proportion of population residing in the metropolitan area (59.69 per cent.) but was closely followed in this respect by South Australia (59.20 per cent.). During the intercensal period, however, the highest rates of increase in metropolitan population were experienced in Queensland and Western Australia.

A feature of the metropolitan population is its high femininity. In 1933, 52.5 per cent. of the metropolitan population was composed of females; in 1947 the proportion had fallen slightly to 51.9 per cent., being highest in Tasmania at 52.3 per cent.

5. **Metropolitan Population : Australia and Other Countries.**—In Australia there is an abnormal concentration of population in the capital cities, which are the only cities of outstanding importance in the various States. A comparison with the capitals of the more important countries is given in the following table. There is some doubt as to the comparability of the figures because of the abnormal conditions during the war and immediately following the war.

METROPOLITAN POPULATION : AUSTRALIA AND OTHER COUNTRIES.

State or Country.	Metropolis.	Year.	Metropolitan Population.
New South Wales ..	Sydney	1950	(a) 1,584,830
Victoria	Melbourne	1950	(a) 1,326,400
Queensland	Brisbane	1950	(a) 444,650
South Australia ..	Adelaide	1950	(a) 422,000
Western Australia ..	Perth	1950	(a) 309,000
Tasmania	Hobart	1950	(a) 83,600
England	London (b)	1950	8,417,377
Scotland	Edinburgh	1950	488,900
Northern Ireland ..	Belfast	1949	452,130
Eire	Dublin	1949	527,700
Canada	Montreal (c)(d) ..	1941	1,139,921
New Zealand	Wellington(e)	1950	193,300
Union of South Africa ..	Capetown(f)	1946	220,398
Argentina	Buenos Aires	1945	2,620,827
Belgium	Brussels	1949	964,749
Brazil	Rio de Janeiro ..	1948	2,052,672
Czechoslovakia ..	Prague	1949	933,000
Denmark	Copenhagen	1945	927,404
Egypt	Cairo	1947	2,100,506
France	Paris	1946	2,725,374
Germany	Berlin	1950	3,314,000
Greece	Athens(h)	1940	1,124,109
Hungary	Budapest	1948	1,058,288
Italy	Rome	1950	1,665,667
Japan	Tokyo (g)	1950	5,385,071
Netherlands	Amsterdam	1950	835,834
Norway	Oslo	1946	418,449
Poland	Warsaw	1950	600,767
Portugal	Lisbon	1950	719,000
Spain	Madrid	1950	1,511,695
Sweden	Stockholm	1950	733,615
U.S.A.	New York (d) ..	1950	7,841,023

(a) Exclusive of full-blood aboriginals. (b) Greater London civilian population. (c) Greater Montreal. (d) Principal City. (e) Excluding Maoris. (f) European population. (g) Greater Tokyo. (h) Greater Athens, including Piraeus.

6. **Principal Urban Areas.**—The following table shows the population of the principal urban incorporated areas in each State and Territory of Australia at the 1947 Census :—

POPULATION OF PRINCIPAL URBAN INCORPORATED AREAS : AUSTRALIA, 1947 CENSUS.

(EXCLUDING FULL-BLOOD ABORIGINALS.)

City or Town.	Population.
New South Wales—	
Sydney and Suburbs	1,484,004
Newcastle and Suburbs	127,138
Broken Hill	27,054
Maitland	19,151
Wollongong (*a*)	18,116
Goulburn	15,991
Fairfield	15,987
Wagga Wagga	15,340
Lismore	15,214
Lithgow	14,461
Albury	14,412
Orange	13,780
Cessnock	13,029
Liverpool	12,642
Tamworth	12,071
Grafton and Grafton South	12,025
Bathurst	11,871
Illawarra North (*a*)	11,810
Cabramatta and Canley Vale	10,966
Dubbo	9,545
Katoomba	8,781
Armidale	7,809
Parkes	6,897
Casino	6,698
Inverell	6,530
Kempsey	6,330
Forbes	5,949
Cowra	5,473
Glen Innes	5.453
Victoria—	
Melbourne and Suburbs	1,226,409
Geelong (*b*)	(*e*) 44,561
Ballaarat (*c*)	(*e*) 40,181
Bendigo (*d*)	(*e*) 30,779
Warrnambool	9,993
Mildura	9,527
Shepparton	7,914
Hamilton	7,180
Wangaratta	6,670
Horsham	6,388
Colac	6,381
Maryborough	6,198
Ararat	5,957
Castlemaine	5,809
Queensland—	
Brisbane and Suburbs	402,030
Rockhampton	34,988
Townsville	34,109
Queensland—*continued.*	
Toowoomba	33,290
Ipswich	26,218
Cairns	16,644
Bundaberg	15,926
Maryborough	14,395
Mackay	13,486
Redcliffe	8,871
Southport	8,430
Gympie	8,413
Charters Towers	7,561
Warwick	7,129
Gladstone	5.244
South Australia—	
Adelaide and Suburbs	382,454
Port Pirie	12,019
Whyalla	7,845
Mount Gambier	6,771
Gawler	4,436
Port Augusta	4,351
Port Lincoln	3,972
Murray Bridge	3,690
Peterborough	2,890
Western Australia—	
Perth and Suburbs	(*f*) 272,528
Kalgoorlie and Suburbs	22,376
Bunbury	6,240
Geraldton	5,972
Albany	4,759
Northam	4,652
Collie	4,507
Tasmania—	
Hobart and Suburbs	76,534
Launceston and Suburbs	40,442
Burnie	7,235
Devonport	7,497
Queenstown	3,598
Ulverstone	3.432
Northern Territory—	
Darwin	2,538
Australian Capital Territory—	
Canberra	15,156

(*a*) From 24th September, 1947, the municipalities of Illawarra North and Wollongong and the shires of Bulli and Illawarra Central were united to form the City of Greater Wollongong. (*b*) Comprises municipalities of Geelong, Geelong West, and Newtown and Chilwell. (*c*) Comprises municipalities of Ballaarat and Sebastopol. (*d*) Comprises municipalities of Bendigo and Eaglehawk. (*e*) Exclusive of urban population in any contiguous shire. (*f*) Includes Fremantle and suburbs, 27,934.

7. **Provincial Urban Areas.**—In par. 4, pages 522-3, the proportion of the total population of each State which was located in incorporated urban provincial areas at the 1933 and 1947 Census is shown. In the following table, however, the aggregate population at the 1947 Census of all cities and towns outside the metropolitan area of each State with 2,000 or more and 3,000 or more inhabitants is shown, irrespective of whether such centres are incorporated separately or not. In addition, the proportion of the aggregate population of these cities and towns to the total population of the State is shown.

AGGREGATE POPULATION OF CITIES AND TOWNS OF SPECIFIED SIZE : 1947 CENSUS.

(EXCLUDING FULL-BLOOD ABORIGINALS.)

State or Territory.	Cities and Towns outside Metropolitan Area with Population of— 2,000 and over. Number.	Population.	Proportion of Total Population.	3,000 and over. Number.	Population.	Proportion of Total Population.
			%			%
New South Wales ..	122	763,562	25.58	76	652,986	21.88
Victoria	62	334,199	16.26	37	272,454	13.26
Queensland.. ..	34	297,909	26.93	26	279,317	25.25
South Australia ..	11	52,812	8.17	7	43,084	6.67
Western Australia ..	10	51,987	10.35	7	44,493	8.85
Tasmania	6	62,413	24.29	5	59,479	23.14
Northern Territory ..	1	2,538	23.35	..	..	..
Australian Capital Territory.. ..	1	15,156	89.66	1	15,156	89.66
Total ..	247	1,580,576	20.85	159	1,366,969	18.03

8. **Principal Cities in the World.**—The following table shows the population of the world's largest cities at the latest available date. There is some doubt as to the comparability of the figures because of the abnormal conditions during and immediately following the war.

POPULATION OF THE WORLD'S LARGEST CITIES.

(Cities in the British Commonwealth are printed in italics.)

Country.	City.	Year.	City Population ('000).	Country.	City.	Year.	City Population ('000).
England ..	*London(a)* ..	*1950*	*8,417*	Belgium ..	Brussels ..	1949	965
U.S.A. ..	New York..	1950	7,841	U.S.A. ..	Baltimore ..	1948	958
Japan ..	Tokyo(b) ..	1950	5,385	Chile ..	Santiago ..	1940	952
U.S.S.R. ..	Moscow ..	1939	4,137	Singapore ..	*Singapore* ..	*1947*	*938*
China ..	Shanghai ..	1946	3,599	Czechoslovakia	Prague ..	1949	933
U.S.A. ..	Chicago ..	1940	3,397	Siam ..	Bangkok ..	1950	928
Germany ..	Berlin ..	1950	3,314	Denmark ..	Copenhagen	1945	927
Japan ..	Osaka ..	1940	3,252	Egypt ..	Alexandria	1947	925
U.S.S.R. ..	Leningrad..	1939	3,191	Canada ..	*Toronto(f)* ..	*1941*	*900*
India ..	*Calcutta(c)*..	*1949*	*2,896*	U.S.A. ..	Cleveland ..	1940	878
France ..	Paris ..	1946	2,725	China ..	Mukden ..	1946	864
Argentina ..	Buenos Aires	1945	2,621	Turkey ..	Istanbul ..	1945	861
Egypt ..	Cairo ..	1947	2,101	U.S.S.R. ..	Kiev ..	1939	846
Brazil ..	Rio de Janeiro	1948	2,053	Netherlands	Amsterdam	1950	836
U.S.A. ..	Philadelphia	1940	1,931	U.S.S.R. ..	Kharkov ..	1939	833
U.S.A. ..	Detroit ..	1950	1,850	U.S.A. ..	St. Louis ..	1940	816
India ..	*Bombay* ..	*1949*	*1,764*	U.S.S.R. ..	Baku ..	1939	809
Mexico ..	Mexico City	1947	1,757	Germany ..	Munich ..	1949	809
China ..	Nanking ..	1946	1,755	England ..	*Liverpool* ..	*1949*	*804*
China ..	Tientsin ..	1946	1,718	China ..	Hankow ..	1931	778
China ..	Peiping ..	1946	1,688	U.S.A. ..	Boston ..	1940	771
Italy ..	Rome ..	1950	1,666	South Africa	*Johannesburg*	*1946*	*758*
Australia ..	*Sydney* ..	*1950*	*1,585*	China ..	Tsingtao ..	1946	750
Austria ..	Vienna ..	1947	1,548	U.S.A. ..	Washington	1942	750
Brazil ..	Sao Paulo..	1948	1,543	Uruguay ..	Montevideo	1949	750
Spain ..	Madrid ..	1950	1,512	U.S.A. ..	Washington	1942	750
U.S.A. ..	Los Angeles	1940	1,504	India ..	*Hyderabad*	*1941*	*739*
Germany ..	Hamburg ..	1946	1,403	Sweden ..	Stockholm	1950	734
Japan ..	Nagoya ..	1940	1,328	Italy ..	Turin ..	1949	723
Australia ..	*Melbourne*..	*1950*	*1,326*	Portugal ..	Lisbon ..	1950	719
Italy ..	Milan ..	1950	1,300	England ..	*Manchester*	*1949*	*704*
Spain ..	Barcelona ..	1949	1,269	Persia ..	Tehran ..	1942	[illegible]
China ..	Canton ..	1936	1,223	Italy ..	Genoa ..	1950	673
Korea ..	Seoul ..	1946	1,142	U.S.A. ..	Pittsburgh	1940	672
Canada ..	*Montreal(d)*	*1941*	*1,140*	Pakistan ..	*Lahore* ..	*1941*	*672*
Greece ..	Athens(e) ..	1940	1,124	Netherlands	Rotterdam	1949	667
England ..	*Birmingham*	*1949*	*1,114*	Cuba ..	Havana ..	1943	660
Scotland ..	*Glasgow* ..	*1949*	*1,098*	U.S.S.R. ..	Gorki ..	1939	644
Japan ..	Kyoto ..	1940	1,090	Hong Kong..	*Hong Kong*	*1938*	*641*
China ..	Chungking	1946	1,062	France ..	Marseilles ..	1946	636
Hungary ..	Budapest ..	1948	1,058	U.S.A. ..	San Francisco	1940	635
Philippines	Manila ..	1948	1,025	China ..	Wenchow ..	1931	631
Italy ..	Naples ..	1950	1,021	Germany ..	Leipzig ..	1946	608
India ..	*Madras* ..	*1949*	*998*	China ..	Changsha ..	1931	607
Rumania ..	Bucharest ..	1945	985	U.S.S.R. ..	Odessa ..	1939	604
Japan ..	Yokohama	1940	968	Poland ..	Warsaw ..	1950	601
Japan ..	Kobe ..	1940	967				

(*a*) Greater London civilian population. (*b*) Greater Tokyo. (*c*) Includes Howrah. (*d*) Greater Montreal. (*e*) Includes Piraeus. (*f*) Greater Toronto.

§ 4. Mean Population.

1. **General.**—Mean populations are calculated for twelve-monthly periods to provide a satisfactory average basis for calculations requiring allowances for the continuous change in population figures during such periods.

2. **Method of Calculation.**—From 1901 onwards the mean population for any year has been calculated by the formula :—

$$\text{Mean Population} = \frac{a + 4b + 2c + 4d + e}{12}$$

where a, b, c, d and e, respectively, are the populations at the end of the quarter immediately preceding the year and at the end of each of the four succeeding quarters, e.g., in the case of a calendar year, 31st December of the preceding year and 31st March, 30th June, 30th September and 31st December of the year under consideration. This formula gives a close approximation to the mean of a theoretical population progressing smoothly through the five values a, b, c, d, e. Section V. of Population and Vital Statistics Bulletin No. 1, 1907 sets out in some detail the principles underlying the adoption of the formula.

3. **Results.**—(i) *Calendar Years.* The following table shows the mean population for each State and Territory for the calendar years 1940 to 1950 :—

MEAN POPULATION : CALENDAR YEARS, 1940 TO 1950.

(EXCLUDING FULL-BLOOD ABORIGINALS.)

Year ended 31st Dec.—	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Nor. Terr.	Aust. Cap. Terr.	Australia.
1940(*a*)	2,777,898	1,900,426	1,026,541	599,136	473,397	241,134	8,354	13,775	7,040,661
1941(*a*)	2,800,537	1,932,412	1,036,555	601,193	473,988	240,389	10,279	14,629	7,109,982
1942(*a*)	2,831,080	1,959,496	1,036,016	609,172	476,619	241,087	8,946	14,223	7,176,639
1943(*a*)	2,857,547	1,973,533	1,047,421	613,327	476,745	242,860	9,574	13,644	7,234,651
1944(*a*)	2,886,204	1,989,870	1,061,467	619,409	481,498	245,618	10,440	14,200	7,308,706
1945(*a*)	2,917,415	2,006,649	1,076,610	627,102	487,510	248,596	10,512	15,012	7,389,406
1946(*a*)	2,945,220	2,025,475	1,090,238	635,127	492,771	252,192	10,568	15,883	7,467,474
1947 ..	2,985,073	2,053,648	1,105,360	646,294	502,978	257,781	10,891	*b* 16,903	7,578,928
1948 ..	3,029,573	2,089,999	1,123,416	658,239	514,843	264,604	12,188	*b* 18,172	7,711,034
1949 ..	3,113,977	2,138,761	1,147,523	674,056	533,083	272,649	13,476	*b* 19,113	7,912,638
1950 ..	3,224,892	2,203,786	1,178,851	700,184	558,709	282,269	14,921	*b* 20,506	8,184,118

(*a*) Includes all defence personnel enlisted in Australia irrespective of movements subsequent to enlistment. (*b*) Revised estimates based on the results of the Census of Canberra on 14th–16th September, 1951, are as follows :—1947, 17,031 ; 1948, 19,197 ; 1949, 21,191 ; and 1950, 23,588.

(ii) *Financial Years.* The following table shows the mean population for each State and Territory for the years ended 30th June, 1940 to 1950 :—

MEAN POPULATION : FINANCIAL YEARS, 1939–40 TO 1949–50.

(EXCLUDING FULL-BLOOD ABORIGINALS.)

Year ended 30th June—	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Nor. Terr.	Aust. Cap. Terr	Australia.
1940(*a*)	2,764,224	1,886,751	1,021,426	598,790	472,060	240,023	7,254	13,224	7,003,752
1941(*a*)	2,790,087	1,916,727	1,032,122	598,900	474,180	241,009	9,540	14,310	7,076,875
1942(*a*)	2,813,385	1,948,710	1,036,600	605,952	474,833	240,358	9,878	14,334	7,144,140
1943(*a*)	2,845,805	1,965,473	1,040,433	610,925	476,089	241,704	8,723	14,017	7,204,069
1944(*a*)	2,871,452	1,981,997	1,054,810	616,151	478,271	244,178	10,408	13,798	7,271,065
1945(*a*)	2,901,[illegible]	1,998,202	1,068,636	623,104	484,720	246,971	10,477	14,607	7,348,170
1946(*a*)	2,932,366	2,015,197	1,084,125	630,921	489,982	250,309	10,537	15,431	7,428,868
1947(*a*)	2,963,056	2,039,348	1,097,303	640,352	497,006	254,553	10,676	16,381	7,518,675
1948 ..	3,006,481	2,069,167	1,112,722	652,285	508,860	261,781	11,310	*b* 17,596	7,640,202
1949 ..	3,063,973	2,113,286	1,134,738	665,139	522,184	268,259	12,847	*b* 18,434	7,798,860
1950 ..	3,171,940	2,170,289	1,163,084	686,825	545,786	277,395	14,247	*b* 20,025	8,049,591

(*a*) Includes all defence personnel enlisted in Australia irrespective of movements subsequent to enlistment. (*b*) Revised estimates based on the results of the Census of Canberra on 14th–16th September, 1951, are as follows :—1948, 18,105 ; 1949, 19,988 ; and 1950, 22,607.

§ 5. Elements of Increase.

1. **Natural Increase.**—(i) *General.* The two factors which contribute to the growth of a population are the " natural increase," i.e., excess of births over deaths, and the " net migration," i.e., the excess of arrivals over departures. In earlier issues of the Official Year Book particulars of the natural increase from 1861 are given for each sex and State (*see* No. 22, page 899).

The natural increase for Australia from 1861 to 1950 inclusive was 5,467,771, consisting of 2,548,959 males and 2,918,812 females, and represented 76.26 per cent. of the total increase in population. During the present century the rate of natural increase grew until it reached the maximum rate of 17.44 per thousand of population in 1914, but it steadily declined after that year to 7.07 in 1934. There was little change until 1939, but during the war and in the post-war period the rate rose sharply, reaching the level of 14.37 in 1947. In 1948 it dropped to 13.12 but rose slightly to 13.74 in 1950.

In the following table particulars of the natural increase for each sex are given in States for each quinquennium from 1901 to 1950 and for the ten years 1941 to 1950. For the purposes of this analysis the natural increase for the period from September, 1939 until June, 1947 has been taken as excess of births over civilian deaths, i.e., no account is taken of deaths of defence personnel.

POPULATION : NATURAL INCREASE (EXCESS OF BIRTHS OVER DEATHS), 1901 TO 1950.

(EXCLUDING FULL-BLOOD ABORIGINALS.)

Period.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Nor. Terr.	Aust. Cap. Terr.	Aust.
					MALES.				
1901–05 ..	51,179	34,332	16,628	12,149	8,283	7,955	—223	(*a*)	130,303
1906–10 ..	64,127	38,948	21,415	14,500	10,762	8,703	—264	(*a*)	158,191
1911–15 ..	77,070	46,160	27,497	18,673	12,730	9,386	—201	78	191,393
1916–20 ..	72,030	41,388	26,894	16,413	9,787	8,673	—125	75	175,135
1921–25 ..	80,860	49,254	28,941	16,721	10,284	8,543	— 68	37	194,572
1926–30 ..	72,430	43,756	25,645	14,583	11,245	7,001	—131	175	174,704
1931–35 ..	51,566	25,286	20,627	8,686	8,576	5,810	— 93	270	120,728
1936–40(*b*)	49,092	26,141	23,145	9,187	9,409	6,040	39	397	123,450
1941–45(*b*)	68,071	42,650	31,871	15,563	12,391	7,234	15	740	178,535
1946–50(*b*)	93,564	63,984	41,580	24,206	19,367	11,356	412	1,583	256,052
1941(*b*) ..	11,187	6,892	5,524	2,334	2,220	1,268	3	124	29,552
1942(*b*) ..	10,698	6,882	5,260	2,201	2,046	1,409	— 20	164	28,640
1943(*b*) ..	13,316	8,819	5,771	3,324	2,627	1,578	— 3	143	35,575
1944(*b*) ..	15,866	9,498	7,113	3,630	2,880	1,362	19	154	40,522
1945(*b*) ..	17,004	10,559	8,203	4,074	2,618	1,617	16	155	44,246
1946(*b*) ..	18,652	12,839	7,682	4,623	3,494	2,165	20	210	49,685
1947(*b*) ..	19,743	13,130	8,661	5,048	3,802	2,314	86	265	53,049
1948 ..	17,453	12,017	8,255	4,559	3,867	2,129	77	299	48,656
1949 ..	18,498	12,224	8,262	4,817	3,933	2,314	108	395	50,551
1950 ..	19,218	13,774	8,720	5,159	4,271	2,434	121	414	54,111

(*a*) Part of New South Wales prior to 1911. (*b*) Excess of births over civilian deaths from September, 1939 to June, 1947.

NOTE.—Minus sign (—) denotes excess of deaths over births.

POPULATION: NATURAL INCREASE (EXCESS OF BIRTHS OVER DEATHS)—*continued.*

Period.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Nor. Terr.	Aust. Cap. Terr.	Aust.
FEMALES.									
1901–05 ..	59,163	39,831	22,910	12,701	11,468	8,027	28	(*a*)	154,128
1906–10 ..	71,297	42,629	26,048	14,754	13,354	8,522	33	(*a*)	176,637
1911–15 ..	87,074	50,258	33,463	19,318	16,262	9,604	62	78	216,119
1916–20 ..	81,799	42,886	32,273	16,825	13,185	8,821	135	72	195,996
1921–25 ..	89,438	49,685	34,289	17,595	13,839	8,837	127	82	213,892
1926–30 ..	80,733	44,417	31,128	15,407	14,406	6,893	126	203	193,313
1931–35 ..	60,300	28,216	26,036	9,228	12,352	5,953	156	280	142,521
1936–40(*b*)	60,628	28,464	28,991	10,057	13,626	6,574	220	437	148,997
1941–45(*b*)	75,809	42,538	36,709	15,654	16,029	7,420	232	826	195,217
1946–50(*b*)	102,959	63,744	46,650	24,605	22,273	11,667	652	1,574	274,124
1941(*b*) ..	13,242	6,992	6,465	2,343	3,129	1,363	91	172	33,797
1942(*b*) ..	12,730	7,072	6,284	2,365	2,779	1,466	29	152	32,877
1943(*b*) ..	15,079	8,971	6,887	3,339	3,267	1,492	34	165	39,234
1944(*b*) ..	17,094	9,358	8,022	3,697	3,512	1,344	39	160	43,226
1945(*b*) ..	17,664	10,145	9,051	3,910	3,342	1,755	39	177	46,083
1946(*b*) ..	20,016	12,320	8,694	4,729	3,858	2,133	57	226	52,033
1947(*b*) ..	21,206	12,794	9,581	5,054	4,349	2,463	125	295	55,867
1948 ..	19,378	12,257	9,141	4,563	4,379	2,322	130	311	52,481
1949 ..	20,950	12,658	9,325	4,852	4,788	2,407	146	324	55,450
1950 ..	21,409	13,715	9,909	5,407	4,899	2,342	194	418	58,293
PERSONS.									
1901–05 ..	110,342	74,163	39,538	24,850	19,751	15,982	—195	(*a*)	284,431
1906–10 ..	135,424	81,577	47,463	29,254	24,116	17,225	—231	(*a*)	334,828
1911–15 ..	164,144	96,418	60,960	37,991	28,992	18,990	—139	156	407,512
1916–20 ..	153,829	84,274	59,167	33,238	22,972	17,494	10	147	371,131
1921–25 ..	170,298	98,939	63,230	34,316	24,123	17,380	59	119	408,464
1926–30 ..	153,163	88,173	56,773	29,990	25,651	13,894	— 5	378	368,017
1931–35 ..	111,866	53,502	46,663	17,914	20,928	11,763	63	550	263,249
1936–40(*b*)	109,720	54,605	52,136	19,244	23,035	12,614	259	834	272,447
1941–45(*b*)	143,880	85,188	68,580	31,217	28,420	14,654	247	1,566	373,752
1946–50(*b*)	196,523	127,728	88,230	48,811	41,640	23,023	1,064	3,157	530,176
1941(*b*) ..	24,429	13,884	11,989	4,677	5,349	2,631	94	296	63,349
1942(*b*) ..	23,428	13,954	11,544	4,566	4,825	2,875	9	316	61,517
1943(*b*) ..	28,395	17,790	12,658	6,663	5,894	3,070	31	308	74,809
1944(*b*) ..	32,960	18,856	15,135	7,327	6,392	2,706	58	314	83,748
1945(*b*) ..	34,668	20,704	17,254	7,984	5,960	3,372	55	332	90,329
1946(*b*) ..	38,668	25,159	16,376	9,352	7,352	4,298	77	436	101,718
1947(*b*) ..	40,949	25,924	18,242	10,102	8,151	4,777	211	560	108,916
1948 ..	36,831	24,274	17,396	9,122	8,246	4,451	207	610	101,137
1949 ..	39,448	24,882	17,587	9,660	8,721	4,721	254	719	106,001
1950 ..	40,627	27,489	18,629	10,566	9,170	4,776	315	832	112,404

(*a*) Part of New South Wales prior to 1911. (*b*) Excess of births over civilian deaths from September, 1939 to June, 1947.

NOTE.—Minus sign (—) denotes excess of deaths over births.

POPULATION : NATURAL INCREASE (EXCESS OF BIRTHS OVER DEATHS)—*continued.*

Period.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Nor. Terr.	Aust. Cap. Terr.	Aust.
RATE OF NATURAL INCREASE(*a*)—PERSONS.									
1901–05 ..	15.59	12.31	15.34	13.92	18.07	17.85	− 8.8	(*b*)	14.60
1906–10 ..	17.25	13.11	16.99	15.44	18.52	18.37	−12.6	(*b*)	15.93
1911–15 ..	18.27	13.91	18.61	17.55	18.76	19.63	− 7.6	13.71	17.05
1916–20 ..	15.69	11.65	16.74	14.51	14.56	17.46	0.43	12.23	14.57
1921–25 ..	15.47	12.32	15.87	13.28	13.69	16.14	3.13	6.84	14.34
1926–30 ..	12.51	10.10	12.84	10.58	12.63	12.85	−0.22	9.60	11.72
1931–35 ..	8.61	5.89	9.88	6.17	9.54	10.33	2.54	12.00	7.95
1936–40(*c*)	8.06	5.84	10.40	6.48	9.94	10.66	8.10	14.00	7.89
1941–45(*c*)	10.05	8.62	13.02	10.14	11.86	12.02	4.84	21.85	10.30
1946–50(*c*)	12.86	12.15	15.63	14.73	15.98	17.33	16.71	34.47	13.65
1941(*c*) ..	8.72	7.18	11.57	7.78	11.29	10.94	9.14	20.23	8.91
1942(*c*) ..	8.28	7.12	11.14	7.50	10.12	11.93	1.01	22.22	8.57
1943(*c*) ..	9.94	9.01	12.08	10.86	12.36	12.64	3.24	22.57	10.34
1944(*c*) ..	11.42	9.48	14.26	11.83	13.28	11.02	5.50	22.11	11.46
1945(*c*) ..	11.88	10.32	16.03	12.73	12.23	13.56	5.23	22.12	12.22
1946(*c*) ..	13.13	12.42	15.02	14.72	14.92	17.04	7.29	27.45	13.62
1947(*c*) ..	13.72	12.62	16.50	15.63	16.21	18.53	19.37	33.13	14.37
1948 ..	12.16	11.61	15.48	13.86	16.02	16.82	16.98	33.57	13.12
1949 ..	12.67	11.64	15.33	14.35	16.36	17.32	18.85	37.62	13.40
1950 ..	12.60	12.47	15.80	15.09	16.41	16.92	21.05	40.57	13.74

(*a*) Excess of births over deaths per 1,000 mean population. (*b*) Part of New South Wales prior to 1911. (*c*) Excess of births over civilian deaths per 1,000 mean population from September, 1939 to June, 1947.

NOTE.—Minus sign (−) denotes excess of deaths over births.

The table above shows the decline which has taken place in the rate of natural increase in all States of Australia since the beginning of the century. The decline is evident notwithstanding the stepping-up of the rate occasioned by increased births since the commencement of the 1939–45 War and the overstatement due to the omission of deaths of defence personnel. During the first five years of the present century the average increment to the population of Australia by this means was 56,886 persons per annum. The increment rose to 81,695 persons per annum in 1921–25, but thereafter fell to 52,050 persons per annum in the quinquennium 1931–35, increasing during 1936–40 to 54,489. During 1941–45 the average annual excess of births over civilian deaths was 74,750, while during 1946–50 the annual excess of births over deaths was a record high average of 106,035, there being 112,404 in the year 1950.

(ii) *Comparison with other Countries.* Notwithstanding its low birth-rate, Australia has a higher rate of natural increase than most European countries, owing to the fact that its death-rate is very low. The following table gives a comparison between the rates of natural increase in 1949 and 1950 for the several States of Australia and for the Dominion of New Zealand, and those of some of the principal countries for which such information is available. Corresponding average annual rates for the period 1909–13 have also been appended.

NATURAL INCREASE OF POPULATION: VARIOUS COUNTRIES.

INCREASE PER ANNUM PER 1,000 MEAN POPULATION.

State or Country.	1909–13.	1949.	1950.	Country.	1909–13.	1949.	1950.
Australasia—				Europe—*continued.*			
Tasmania (*a*) ..	18.8	17.3	16.9	Sweden	10.4	7.4	(*d*)
Western Australia (*a*)	18.1	16.4	16.4	France	0.8	7.2	(*d*)
Queensland (*a*) ..	17.9	15.3	15.8	Scotland	10.7	6.2	5.4
New Zealand (*b*) ..	17.1	15.8	15.3	Belgium	7.8	4.3	(*d*)
South Australia (*a*) ..	16.8	14.4	15.1	England and Wales..	10.7	5.1	4.1
Australia (*a*) ..	16.7	13.4	13.7				
New South Wales (*a*)	18.0	12.7	12.6	Asia—			
Victoria (*a*).. ..	13.6	11.6	12.5	Japan	13.1	21.6	(*d*)
Europe—							
Netherlands ..	15.1	15.6	15.1	Africa—			
Norway	12.4	10.5	(*d*)	Union of South Africa (whites only) ..	(*d*)	17.6	(*d*)
Denmark	13.9	10.0	(*d*)				
Spain	9.3	10.5	(*d*)				
Italy	12.8	9.6	9.5				
Northern Ireland ..	6.3	9.8	9.4	America—			
Eire	6.3	8.7	(*d*)	Canada	(*d*)	17.7	(*d*)
Austria	(*c*)6.1	3.2	(*d*)	United States ..	(*d*)	14.3	13.8
Switzerland ..	9.3	7.7	(*d*)				

(*a*) Excludes full-blood aboriginals. (*b*) Excludes Maoris. (*c*) 1911–13. (*d*) Not available.

2. **Net Migration.***—The other factor of increase in the population, namely, the excess of arrivals over departures, known as "net migration," is, from its nature, much more subject to variation than is "natural increase".

Particulars of the increase by net migration are given below for quinquennial periods from 1901 to 1950 and annually for the ten years 1941–50. Disturbances in war-time migration records were caused by interstate troop movements, which prevented accurate count of civilians travelling interstate. Interstate passenger traffic was, for this reason, excluded from migration records from 30th June, 1943 to the date of the Census, 30th June, 1947.

POPULATION: INCREASE BY NET MIGRATION, 1901 TO 1950.

Period.	N.S.W.	Victoria.	Q'land.	S. Aust.	W.Aust.	Tas.	Nor. Terr.	Aust. Cap. Terr.	Aust.
				MALES.					
1901–05..	15,671	−37,971	495	−11,031	28,127	−1,771	−697	(*a*)	−7,177
1906–10..	11,157	9,400	12,291	10,590	711	−5,784	−366	(*a*)	37,999
1911–15..	38,483	1,568	13,037	−4,263	189	−9,599	1,050	−90	40,375
1916–20..	23,150	18,205	3,614	7,920	−3,782	−67	−551	30	48,519
1921–25..	35,660	37,760	18,834	14,244	15,375	−5,630	17	1,199	117,459
1926–30..	37,524	7,849	11,584	−2,230	19,069	−3,668	870	2,259	73,257
1931–35..	−1,646	−5,951	6,195	−3,654	−4,215	−1,384	−24	3	−10,676
1936–40(*b*)	7,847	12,096	5,249	−4,988	−2,501	−793	2,787	1,176	20,873
1941–45*bc*	6,614	17,502	−6,487	2,202	−9,261	−4,312	889	−1,822	5,325
1946–50*bc*	91,100	58,773	11,300	18,531	23,299	13,178	1,852	−305	217,728
1941 (*b*)..	−1,848	12,381	−3,883	1,839	−4,317	−2,715	906	−565	1,798
1942 (*b*)..	10,505	3,030	−6,780	699	−1,636	−848	−1,185	−549	3,236
1943 (*b*)(*c*)	−1,903	2,913	3,671	−392	−2,892	−748	1,168	−708	1,109
1944 (*b*)(*c*)	−579	−237	−100	20	−38	−1	..	..	−935
1945 (*b*)(*c*)	439	−585	605	36	−378	..	..	..	117
1946 (*b*)(*c*)	−2,680	−783	−1,443	−2	−321	−58	−12	..	−5,299
1947 (*b*)(*c*)	3,820	−2,442	−2,206	1,736	2,278	5,316	52	22	8,576
1948 ..	10,187	11,673	2,295	2,444	2,828	2,483	585	29	32,524
1949 ..	44,236	20,434	5,862	7,062	8,140	3,238	555	416	89,943
1950 ..	35,537	29,891	6,792	7,291	10,374	2,190	672	−772	91,984

(*a*) Part of New South Wales prior to 1911. (*b*) Excludes troop movements from September, 1939 to June, 1947. (*c*) Excludes interstate migration from July, 1943 to June, 1947.

NOTE.—Minus sign (−) indicates excess of departures over arrivals.

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* The subject of migration is dealt with at some length later in this chapter.

POPULATION: INCREASE BY NET MIGRATION, 1901 TO 1950—*continued.*

Period.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Nor. Terr.	Aust. Cap. Terr.	Aust.
					FEMALES.				
1901–05..	1,566	-21,984	- 2,398	- 8,448	22,293	- 726	81	(*a*)	- 9,616
1906–10..	9,390	10	7,780	4,403	1,867	- 4,023	- 148	(*a*)	19,279
1911–15..	48,612	25,051	12,054	5,389	10,650	- 5,658	271	118	96,487
1916–20..	21,294	985	2,776	3,863	- 4,530	- 2,211	47	- 34	22,190
1921–25..	24,660	19,443	12,154	7,482	6,706	- 5,138	- 244	744	65,807
1926–30..	33,326	12,532	3,537	- 341	9,363	- 4,293	278	2,048	56,450
1931–35..	1,093	2,943	1,125	- 2,284	- 578	- 2,644	88	47	- 210
1936–40(*b*)	14,414	9,409	1,509	- 2,608	32	- 1,872	715	656	22,255
1941–45*bc*	3,648	10,745	- 4,759	786	- 3,654	- 3,701	357	- 938	2,484
1946–50*bc*	57,189	30,315	6,495	13,464	17,552	7,708	1,643	990	135,356
1941 (*b*)..	617	7,114	- 889	1,082	- 2,261	- 1,802	- 237	- 238	3,386
1942 (*b*)..	5,121	3,131	- 3,969	261	523	- 1,523	- 312	- 302	2,930
1943 (*b*)(*c*)	-978	1,432	1,532	- 577	- 1,383	- 372	906	- 398	162
1944 (*b*)(*c*)	-204	- 204	- 729	- 38	- 69	- 4	..	..	- 1,248
1945 (*b*)(*c*)	- 908	- 728	- 704	58	- 464	..	..	..	- 2,746
1946 (*b*)(*c*)	- 6,586	803	- 3,149	- 10	- 844	- 77	14	..	- 9,849
1947 (*b*)(*c*)	197	- 1,412	- 2,219	683	1,085	3,771	76	- 146	2,035
1948 ..	7,744	8,679	2,053	1,296	2,375	- 307	711	40	22,591
1949 ..	29,907	12,700	4,286	5,215	5,624	1,144	547	635	60,058
1950 ..	25,927	9,545	5,524	6,280	9,312	3,177	295	461	60,521
					PERSONS.				
1901–05..	17,237	-59,955	- 1,903	-19,479	50,420	- 2,497	- 616	(*a*)	-16,793
1906–10..	20,547	9,410	20,071	14,993	2,578	- 9,807	- 514	(*a*)	57,278
1911–15..	87,095	26,619	25,091	1,126	10,839	-15,257	1,321	28	136,862
1916–20..	44,444	19,190	6,390	11,783	- 8,312	- 2,278	- 504	- 4	70,709
1921–25..	60,320	57,203	30,988	21,726	22,081	-10,768	- 227	1,943	183,266
1926–30..	70,850	20,381	15,121	- 2,571	28,432	- 7,961	1,148	4,307	129,707
1931–35..	- 553	- 3,008	7,320	- 5,938	- 4,793	- 4,028	64	50	-10,886
1936–40(*b*)	22,261	21,505	6,758	- 7,596	- 2,469	- 2,665	3,502	1,832	43,128
1941–45*bc*	10,262	28,247	-11,240	2,988	-12,915	- 8,013	1,246	- 2,760	7,800
1946–50*bc*	148,289	89,088	17,795	31,995	40,851	20,886	3,495	685	353,084
1941 (*b*)..	- 1,231	19,495	- 4,772	2,921	- 6,578	- 4,517	669	- 803	5,184
1942 (*b*)..	15,626	6,161	-10,749	960	- 1,113	- 2,371	- 1,497	- 851	6,166
1943 (*b*)(*c*)	- 2,881	4,345	5,203	- 969	- 4,275	- 1,120	2,074	- 1,106	1,271
1944 (*b*)(*c*)	- 783	- 441	- 829	- 18	- 107	- 5	..	..	- 2,183
1945 (*b*)(*c*)	- 469	- 1,313	- 99	94	- 842	..	..	..	- 2,629
1946 (*b*)(*c*)	- 9,266	20	- 4,592	- 12	- 1,165	- 135	2	..	-15,148
1947 (*b*)(*c*)	4,017	- 3,854	- 4,425	2,419	3,363	9,087	128	- 124	10,611
1948 ..	17,931	20,352	4,348	3,740	5,203	2,176	1,296	69	55,115
1949 ..	74,143	33,134	10,148	12,277	13,764	4,382	1,102	1,051	150,001
1950 ..	61,464	39,436	12,316	13,571	19,686	5,376	967	- 311	152,505

(*a*) Part of New South Wales prior to 1911. (*b*) Excludes troop movements from September, 1939 to June, 1947. (*c*) Excludes interstate migration from July, 1943 to June, 1947.

NOTE.—Minus sign (—) indicates excess of departures over arrivals.

There was a loss of population by migration in the first five years of the present century; in the next five quinquennial periods there were varying gains which averaged about 115,000 per quinquennium.

In the five years ended 1935 there was a net emigration of 10,886 and in the five years ended 1940 a net immigration of 43,128. During the war period 1941–45 net immigration fell to 7,809 persons. A large net loss by migration of 15,148 persons in 1946 was due mainly to the departure of refugees and evacuees, and also fiancées, wives and children of British and Allied servicemen. With increasing transport facilities after the war and the resumption of assisted migration, net gains of 10,611 and 55,115 persons were recorded in 1947 and 1948 respectively. The net gains increased considerably in 1949 and 1950, for which the figures were 150,001 and 152,505 respectively; these were the highest gains recorded for individual years with the exception of 1919 which included troops returning from the 1914–18 War.

3. **Total Increase.**—The total increase of the population is obtained by combining the natural increase with the increase by net migration. For the period September, 1939 to June, 1947, deaths of defence personnel have been deducted from the total increase so derived. The results of the 1947 Census disclosed some unrecorded movement of population during the intercensal period July, 1933 to June, 1947, and particulars of total increase, after taking into account deaths of defence personnel, have been adjusted for this discrepancy. No separate adjustment has, however, been applied to individual elements of increase during this period, although intercensal discrepancies disclosed by previous Censuses were adjusted on recorded oversea departures.

The total increment to the population from the beginning of 1861 to the end of 1950 was 7,170,206, while that from 1901 to 1950 was 4,550,452. The annual results for the last ten years are shown below, together with quinquennial figures from 1901 to 1950. For the reasons stated in the previous paragraph, the figures for the period 1933 to 1947 differ from the totals of figures for natural increase and net migration shown in preceding tables by an amount equal to the net total of deaths of defence personnel and unrecorded movement of population.

POPULATION : TOTAL INCREASE, 1901 TO 1950.

Period.	N.S.W.	Victoria.	Q'land.	S. Aust.	W.Aust.	Tas.	Nor. Terr.	Aust. Cap. Terr.	Aust.
					MALES.				
1901–05..	66,850	— 3,639	17,123	1,118	36,410	6,184	— 920	(a)	123,126
1906–10..	75,284	48,348	33,706	25,090	11,473	2,919	— 630	(a)	196,190
1911–15..	115,553	47,728	40,534	14,410	12,919	— 213	849	— 12	231,768
1916–20..	95,180	59,593	30,508	24,333	6,005	8,606	— 676	105	223,654
1921–25..	116,520	87,014	47,775	30,965	25,659	2,913	— 51	1,236	312,031
1926–30..	109,954	51,605	37,229	12,353	30,314	3,333	739	2,434	247,961
1931–35..	50,277	18,318	26,789	5,049	5,871	4,619	— 109	502	111,316
1936–40(b)	57,601	36,207	28,364	4,218	9,995	5,526	2,847	2,622	147,470
1941–45bc	62,389	47,747	20,117	14,703	2,856	2,204	915	427	151,358
1946–50bc	184,793	122,179	52,837	42,799	43,512	24,617	2,269	1,768	474,774
1941 (b)..	8,212	17,582	1,167	3,760	— 1,892	— 1,497	927	— 123	28,136
1942 (b)	17,230	6,110	— 3,112	1,866	— 26	287	— 1,208	— 92	21,055
1943 (b)(c)	8,438	8,820	7,971	2,144	— 427	627	1,160	— 273	28,460
1944 (b)(c)	13,374	7,340	6,110	3,198	2,912	1,226	19	457	34,636
1945 (b)(c)	15,135	7,895	7,981	3,735	2,289	1,561	17	458	39,071
1946 (b)(c)	15,958	11,611	6,184	4,650	3,720	2,153	11	536	44,823
1947 (b)(c)	23,706	10,555	6,467	6,817	6,379	7,667	140	451	62,182
1948 ..	27,640	23,690	10,550	7,003	6,695	4,612	662	328	81,180
1949 ..	62,734	32,658	14,124	11,879	12,073	5,552	663	811	140,494
1950 ..	54,755	43,665	15,512	12,450	14,645	4,633	793	— 358	146,095

(a) Part of New South Wales prior to 1911. (b) Includes recorded deaths of defence personnel whether inside or outside Australia from September, 1939 to June, 1947. (c) Excludes interstate migration from July, 1943 to June, 1947.

NOTE.—Minus sign (—) denotes decrease.

POPULATION : TOTAL INCREASE, 1901 TO 1950—*continued.*

Period.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Nor. Terr.	Aust. Cap. Terr.	Australia.
FEMALES.									
1901–05 . .	60,729	17,847	20,512	4,253	33,761	7,301	109	(*a*)	144,512
1906–10 . .	80,687	42,639	33,828	19,157	15,221	4,499	— 115	(*a*)	195,916
1911–15 . .	135,686	75,309	45,517	24,707	26,912	3,946	333	196	312,606
1916–20 . .	103,093	43,871	35,049	20,688	8,655	6,610	182	38	218,186
1921–25 . .	114,098	69,128	46,443	25,077	20,545	3,699	— 117	826	279,699
1926–30 . .	114,059	56,949	34,665	15,066	23,769	2,600	404	2,251	249,763
1931–35 . .	61,442	30,672	27,772	7,246	12,142	3,507	275	539	143,595
1936–40(*b*)	75,275	37,026	31,791	8,076	14,458	5,053	997	1,778	174,454
1941–45*bc*	79,661	52,442	33,295	17,123	13,156	4,074	657	845	201,253
1946–50*bc*	160,235	93,970	53,544	38,329	40,071	19,500	2,317	2,854	410,820
1941 (*b*) . .	13,896	13,925	5,852	3,550	1,029	— 370	— 132	126	37,876
1942 (*b*) . .	17,854	10,023	2,566	2,746	3,468	15	— 270	41	36,443
1943 (*b*)(*c*)	14,133	10,238	8,688	2,905	2,036	1,189	954	— 41	40,102
1944 (*b*)(*c*)	16,954	8,998	7,561	3,805	3,599	1,410	53	350	42,730
1945 (*b*)(*c*)	16,824	9,258	8,628	4,117	3,024	1,830	52	369	44,102
1946 (*b*)(*c*)	13,436	13,051	5,783	4,886	3,165	2,137	85	418	42,961
1947 (*b*)(*c*)	21,484	11,365	7,523	5,830	5,529	6,278	209	247	58,465
1948 . .	27,122	20,936	11,194	5,859	6,754	2,015	841	351	75,072
1949 . .	50,857	25,358	13,611	10,067	10,412	3,551	693	959	115,508
1950 . .	47,336	23,260	15,433	11,687	14,211	5,519	489	879	118,814
PERSONS.									
1901–05 . .	127,579	14,208	37,635	5,371	70,171	13,485	— 811	(*a*)	267,638
1906–10 . .	155,971	90,987	67,534	44,247	26,694	7,418	— 745	(*a*)	392,106
1911–15 . .	251,239	123,037	86,051	39,117	39,831	3,733	1,182	184	544,374
1916–20 . .	198,273	103,464	65,557	45,021	14,660	15,216	— 494	143	441,840
1921–25 . .	230,618	156,142	94,218	56,042	46,204	6,612	— 168	2,062	591,730
1926–30 . .	224,013	108,554	71,894	27,419	54,083	5,933	1,143	4,685	497,724
1931–35 . .	111,719	48,990	54,561	12,295	18,013	8,126	166	1,041	254,911
1936–40(*b*)	132,876	73,323	60,155	12,294	24,453	10,579	3,844	4,400	321,924
1941–45*bc*	142,050	100,189	53,412	31,826	16,012	6,278	1,572	1,272	352,611
1946–50*bc*	345,028	216,149	106,381	81,128	83,583	44,117	4,586	4,622	885,594
1941 (*b*) . .	22,108	31,507	7,019	7,310	— 863	— 1,867	795	3	66,012
1942 (*b*) . .	35,084	16,133	— 546	4,612	3,442	302	— 1,478	— 51	57,498
1943 (*b*)(*c*)	22,571	19,058	16,659	5,049	1,609	1,816	2,114	— 314	68,562
1944 (*b*)(*c*)	30,328	16,338	13,671	7,003	6,511	2,636	72	807	77,366
1945 (*b*)(*c*)	31,959	17,153	16,609	7,852	5,313	3,391	69	827	83,173
1946 (*b*)(*c*)	29,394	24,662	11,967	9,536	6,885	4,290	96	954	87,784
1947 (*b*)(*c*)	45,190	21,920	13,990	12,647	11,908	13,945	349	698	120,647
1948 . .	54,762	44,626	21,744	12,862	13,449	6,627	1,503	679	156,252
1949 . .	113,591	58,016	27,735	21,946	22,485	9,103	1,356	1,770	256,002
1950 . .	102,091	66,925	30,945	24,137	28,856	10,152	1,282	521	264,909

(*a*) Part of New South Wales prior to 1911. (*b*) Includes recorded deaths of defence personnel whether inside or outside Australia, from September, 1939 to June, 1947. (*c*) Excludes interstate migration from July, 1943 to June, 1947.

NOTE.—Minus sign (—) denotes decrease.

4. **Rates of Increase.**—(i) *Australia.* The annual rates of increase per cent. of population in Australia during each of the years 1940 to 1950 were as follows:—1940, 1.04; 1941, 0.93; 1942, 0.80; 1943, 0.95; 1944, 1.06; 1945, 1.13; 1946, 1.18; 1947, 1.61; 1948, 2.05; 1949, 3.28; 1950, 3.29.

The annual rate of increase of the population during the present century has averaged 1.60 per cent., but the results from year to year have deviated widely from this figure. In the following table the period 31st December, 1900 to 31st December, 1950 has been arranged into certain defined groups of years according to the occurrence of influences markedly affecting the growth of population:—

POPULATION: PERIODICAL RATES OF INCREASE.

Period.	Interval.	Total Increase.	Average Annual Numerical Increase.	Average Annual Rate of Increase.		
				Natural Increase.	Net Migration.	Total.
	Years	Thousand	Thousand	Per cent.	Per cent.	Per cent.
1901 to 1913 ..	13	1,128	87	1.59	0.53	2.04
1914 to 1923 ..	10	862	86	1.50	0.15	1.64
1924 to 1929 ..	6	680	113	1.28	0.64	1.88
1930 to 1939(*a*) ..	10	569	57	0.82	0.03	0.85
1940 to 1946(*a*) ..	7	513	73	0.98	0.03	1.01
1947 to 1950(*a*) ..	4	798	199	1.39	1.21	2.55

(*a*) Population figures include Australian defence forces overseas from September, 1939 to June, 1947.

Up to 1913 the rate of natural increase was rising, and this factor, coupled with the impetus given to immigration from 1911 onwards by increased governmental assistance, was responsible for the comparatively high annual rate of 2.04 per cent. during this period. The 1914–18 War was a dominating influence in the decade 1914–23, and its effects can be seen in the reduction of the rate from 2.04 to 1.64 per cent. In the next span, 1924–29 a more settled and prosperous era was experienced; encouraged migration was resumed on a large scale and, despite a further decline in the rate of natural increase owing to the persistent fall in the birth-rate, the annual rate of growth rose to 1.88 per cent. After 1929 came the economic depression, and immigration ceased—in fact Australia actually lost people through an excess of departures over arrivals in 1930, 1931, 1932 and 1935. The rate of natural increase also fell, and the rate of growth of the population receded to 0.85 per cent. per annum. With the outbreak of war in 1939, Australia entered a new phase in her demographic history, the full effects of which will not be seen for some time to come. The immediate effect of the war was to increase the number of marriages and to reverse the downward trend in fertility. The number of births increased each war year from 1940 to 1945, and these increases more than offset the rise in deaths due to war casualties and higher civilian death rates. As might be expected, migration over these years was negligible. The post-war period 1946 to 1950 was marked by a continued high natural increase and a resumption of immigration, the latter resulting in a substantial net gain of 152,505 persons in 1950. The annual rate of growth for the period was 2.28 per cent.

Rates of increase from 1860 to 1950 may be found for each State and Territory of Australia in *Demography Bulletin,* No. 68, 1950.

(ii) *Various Countries.* The table hereunder gives approximate rates of increase of the population of Australia and its component States, in comparison with those for other countries :—

POPULATION : RATES OF INCREASE IN VARIOUS COUNTRIES.

State or Country.	Average Annual Rate of Increase per cent. of Population.								
	1901–06.	1906–11.	1911–16.	1916–21.	1921–26.	1926–31.	1931–36.	1936–41.	1941–46.
AUSTRALASIA—									
Australia	1.38	2.04	1.87	2.07	2.11	1.50	0.76	0.96	0.98
New South Wales(*a*) ..	1.99	2.05	2.61	2.19	2.20	1.74	0.87	1.00	1.03
Victoria	0.17	1.70	1.38	1.68	2.00	1.18	0.50	0.94	0.93
Queensland	1.35	2.77	2.18	2.17	2.38	1.53	1.15	1.13	0.97
South Australia(*b*) ..	0.27	2.48	1.47	2.33	2.17	0.81	0.42	0.58	1.12
Western Australia ..	6.22	2.42	1.77	1.31	2.66	2.56	0.92	0.97	0.74
Tasmania	1.33	0.63	0.43	1.90	0.04	1.01	0.54	0.82	1.01
New Zealand ..	2.81	2.43	1.56	2.13	2.06	1.38	0.79	0.58*c*	1.81
EUROPE—									
England and Wales ..	1.04	1.02	−0.84	1.81	0.64	0.44	0.42	0.44	0.45
Scotland	0.55	0.56	0.31	0.24	0.09	−0.21	0.50	0.64	0.03
Eire	−0.22	−0.06	−0.21	0.58	−0.60	−0.12	0.28	0.18	−0.20
Belgium	1.26	0.69	0.53	−0.55	1.03	0.71	0.42	−0.10	0.22
Denmark	1.12	1.26	1.20	2.13	1.01	0.67	0.84	0.74	1.20
France	0.15	0.06	−0.72	0.55	0.76	0.53	0.02	−1.48	0.51
Germany	1.46	1.33	0.71	−1.60	0.37	0.55	0.58	(*d*)	(*d*)
Italy	0.52	0.80	1.16	0.22	0.91	0.31	0.63	0.55*e*	0.49*f*
Netherlands ..	1.53	1.22	1.72	1.16	1.53	1.06	1.26	1.12	1.00
Norway	0.51	0.73	1.10	1.14	0.65	0.42	0.46	0.52	0.90
Spain	0.52	0.87	0.66	0.82	0.65	0.89	1.46	0.91	0.94
Sweden	0.61	0.84	0.70	0.64	0.40	0.29	0.34	0.45	1.01
Switzerland	1.28	1.17	0.81	0.01	0.38	0.62	0.44	0.43	0.98
ASIA—									
Ceylon	1.62	1.20	1.71	1.28	2.30	1.18	1.34	1.40	2.15
Japan	1.29	1.08	1.42	0.37	1.42	1.48	0.77	1.06	0.92
AMERICA—									
Canada	2.99	2.99	2.20	1.81	1.33	1.97	1.23	0.85	1.35
United States ..	2.00	1.82	1.67	1.21	1.67	1.27	0.69	0.79	1.18

(*a*) Includes Australian Capital Territory. (*b*) Includes Northern Territory. (*c*) Excludes armed forces overseas at 31st December, 1941. (*d*) Not available. (*e*) Excludes war losses. (*f*) Territory defined by 1947 peace treaty.

NOTE.—Minus sign (−) denotes decrease.

§ 6. Density.

1. **General.**—From certain aspects population may be less significant in respect of its absolute amount than in its relation to the area of the country. Australia, with an area of 2,974,581 square miles, and an estimated population on 31st December, 1950 of 8,315,791, excluding about 47,000 full-blood aboriginals, has a density of only 2.80 persons to the square mile, and is, therefore, the most sparsely populated of the civilized countries of the world. For the other continents and sub-continents the densities are approximately as follows :—Europe (excluding U.S.S.R.), 205 ; Asia (excluding U.S.S.R.), 121 ; U.S.S.R., 22 ; Africa, 17 ; North and Central America, 25 ; and South America, 16. The population of Australia has thus about one-sixth of the density of South America and of Africa ; about one-eighth of that of U.S.S.R. ; about one-ninth of that of North and Central America ; about one-forty-third of that of Asia (excluding U.S.S.R.) ; and about one-seventy-first of that of Europe (excluding U.S.S.R.).

On account of the very large area of Australia and the unsuitability for settlement of much of the country, the density of population must necessarily increase slowly. In Australia as a whole the figure has increased from 1.29 per square mile in 1901 to 2.80 in 1950. Victoria's density, however, has grown from 13.77 to 25.39 and that of New South Wales from 4.43 to 10.59 in the same period.

A map showing the density of population throughout Australia at the 1947 Census appears on page 541. When comparing the density of population of the several States consideration should be given to the average annual rainfall distribution in each State as an indication of the climatic influence upon probable population numbers. The area of New South Wales receiving less than 10 inches of rainfall is 20 per cent.; Victoria, nil; Queensland, 13 per cent.; South Australia, 83 per cent.; Western Australia, 58 per cent.; Tasmania, nil; and Australia, 38 per cent.

2. **Main Countries of World.**—Number and density of population of the most important countries of the world at 30th June, 1949, are shown in the following table. In some instances, more particularly in the cases of Asia and Africa, the numbers must be considered as rough approximations only.

POPULATION OF THE MAIN COUNTRIES OF THE WORLD : NUMBER AND DENSITY, 1949.

Country.	Population. ('000).	Density. (*a*)
EUROPE.		
Germany	68,457	497.5
United Kingdom	50,363	534.6
Italy	45,996	395.7
France	41,550	195.3
Spain	28,023	144.3
Poland	24,448	203.1
Yugoslavia	16,040	161.7
Rumania	16,007	174.6
Czechoslovakia	12,463	252.5
Netherlands	9,956	764.4
Hungary	9,224	256.8
Belgium	8,614	731.3
Portugal	8,491	239.8
Greece (*b*)	7,856	153.5
Bulgaria	7,160	167.3
Austria	7,000	216.2
Sweden	6,956	40.1
Switzerland	4,640	291.0
Denmark	4,230	255.2
Finland	4,016	30.9
Norway	3,233	25.8
Eire	2,991	110.2
Other	5,075	..
Total Europe	392,789	205.3
ASIA.		
China	463,500	123.3
India	346,000	283.6
Japan	82,151	577.2
Pakistan	74,437	206.2
Indonesia	72,000	97.9
Korea	29,291	343.5
French Indo-China	27,460	100.8
Turkey (*d*)	19,623	66.2
Philippine Islands	19,498	168.7
Iran	18,387	29.3
Burma	18,304	70.0
Siam	17,987	90.7
Afghanistan	12,000	48.0
Ceylon	7,297	288.1
Nepal	6,910	127.8
Saudi Arabia	6,000	(*c*)
Yemen	4,500	60.0
Other	28,169	..
Total Asia	1,253,514	121.1
U.S.S.R. (Europe and Asia)	(*e*) 193,000	22.4
AFRICA.		
Nigeria	24,000	70.9
Egypt	20,045	51.9
French West Africa	16,700	9.2
Ethiopia	16,700	47.7
Union of South Africa	12,112	25.6
Belgian Congo	11,046	12.2
Algeria	8,764	10.3
French Morocco	8,594	53.2
Anglo-Egyptian Sudan	7,558	7.8
Tanganyika Territory	7,514	20.7
Mozambique	6,251	21.0
Other	58,597	..
Total Africa	197,881	17.0
NORTH AND CENTRAL AMERICA.		
United States of America	149,215	49.4
Mexico	24,448	32.2
Canada	13,549	3.7
Cuba	5,199	117.6
Other	20,905	..
Total North and Central America	213,316	24.6
SOUTH AMERICA.		
Brazil	49,340	15.0
Argentina	16,818	15.6
Columbia	11,015	25.0
Peru	8,240	17.1
Chile	5,709	19.9
Other	16,397	..
Total South America	107,519	15.5
OCEANIA, ETC.		
Australia(*f*)	7,959	2.7
New Zealand and Dependencies	1,881	18.2
Territory of New Guinea	1,008	10.8
Hawaii	488	75.9
Papua	304	3.4
Fiji	281	39.7
Other	513	..
Total Oceania, etc.	12,434	3.8
SUMMARY.		
Europe	392,789	205.3
Asia	1,253,514	121.1
U.S.S.R.	193,000	22.4
Africa	197,881	17.0
America, North and Central	213,316	24.6
America, South	107,519	15.5
Oceania, etc.	12,434	3.8
Total	2,370,453	46.1

(*a*) Number of persons per square mile. (*b*) Includes Dodecanese Islands. (*c*) Not available. (*d*) Includes European Territory. (*e*) Population 1946. (*f*) Includes 47,000 full-blood aboriginals.

The populations shown in the above table are, in the main, in accordance with figures published in the *Demographic Year Book*, 1949–50, published by the United Nations, and the countries have been arranged in accordance with the continental groups used therein.

§ 7. General Characteristics.

1. **Sex Distribution.**—(i) *States.* The number of males to each hundred females has been adopted as a measure of the "masculinity" of the population. On pp. 163–5 in the second issue of the Official Year Book a table was included showing the masculinity of the population of each of the States for each year from 1796 to 1907. In the fifth issue, on p. 123, the figures in this table for the years 1901 to 1907 were modified in accordance with the results of the 1911 Census.

With the exception of some dislocation arising from the two World Wars, there has been a continuous diminution of the masculinity of the population. In 1900 the masculinity was 110.55; in 1910, 107.87 and in 1920, 103.47. After 1921, however, the masculinity tended to rise until 1927 (104.54), since when it gradually fell to 100.36 in 1945 but rose again to 101.88 in 1950.

A reduction in the masculinity of a population may be expected where persons in the higher age-groups constitute an increasing proportion of the total population. This is a direct consequence of the greater longevity of females. A falling birth-rate tends to reduce masculinity while a rising birth-rate tends to increase it.

The following table shows the masculinity of the population at quinquennial intervals from 1901 to 1945 and thereafter for each year :—

POPULATION : MASCULINITY, 1901 TO 1950.

(NUMBER OF MALES PER 100 FEMALES.)

As at 31st December—	N.S.W.	Victoria.	Q'land.	S. Aust.	W.Aust.	Tas.	Nor. Terr.	Aust. Cap. Terr.	Aust.
1901	110.12	101.16	125.78	102.71	155.69	107.90	593.32	(a)	110.15
1905	111.05	97.60	121.75	101.65	141.35	106.09	496.76	(a)	108.65
1910	109.23	98.71	119.02	103.12	132.90	104.14	486.32	(a)	107.87
1915	105.66	95.07	114.74	98.26	117.23	99.77	400.33	109.75	103.55
1920	104.31	97.38	112.00	99.83	114.55	101.67	270.04	116.70	103.47
1925	104.09	99.71	110.94	102.02	115.76	100.90	297.61	132.37	104.24
1930	103.39	99.14	110.66	100.97	117.17	101.53	263.66	118.69	103.85
1935	102.38	97.84	109.81	100.20	113.21	102.45	212.80	115.64	102.71
1940	100.98	97.85	108.48	98.91	110.38	102.74	240.31	124.62	101.81
1945	99.75	97.50	105.45	98.21	105.49	101.15	220.16	115.86	100.36
1946	99.93	97.39	105.47	98.16	105.65	101.14	214.95	116.55	100.41
1947	100.07	97.34	105.20	98.49	105.86	102.13	206.33	118.63	100.50
1948	100.11	97.65	104.98	98.86	105.69	104.03	182.10	117.55	100.65
1949	100.85	98.37	104.95	99.42	106.09	105.37	170.40	114.08	101.26
1950	101.29	100.24	104.83	99.65	105.93	104.55	169.67	100.48	101.88

(a) Part of New South Wales prior to 1911.

(ii) *Various Countries.* The difference between young and old countries in the masculinity of their population is clearly illustrated by the comparisons furnished in the following table.

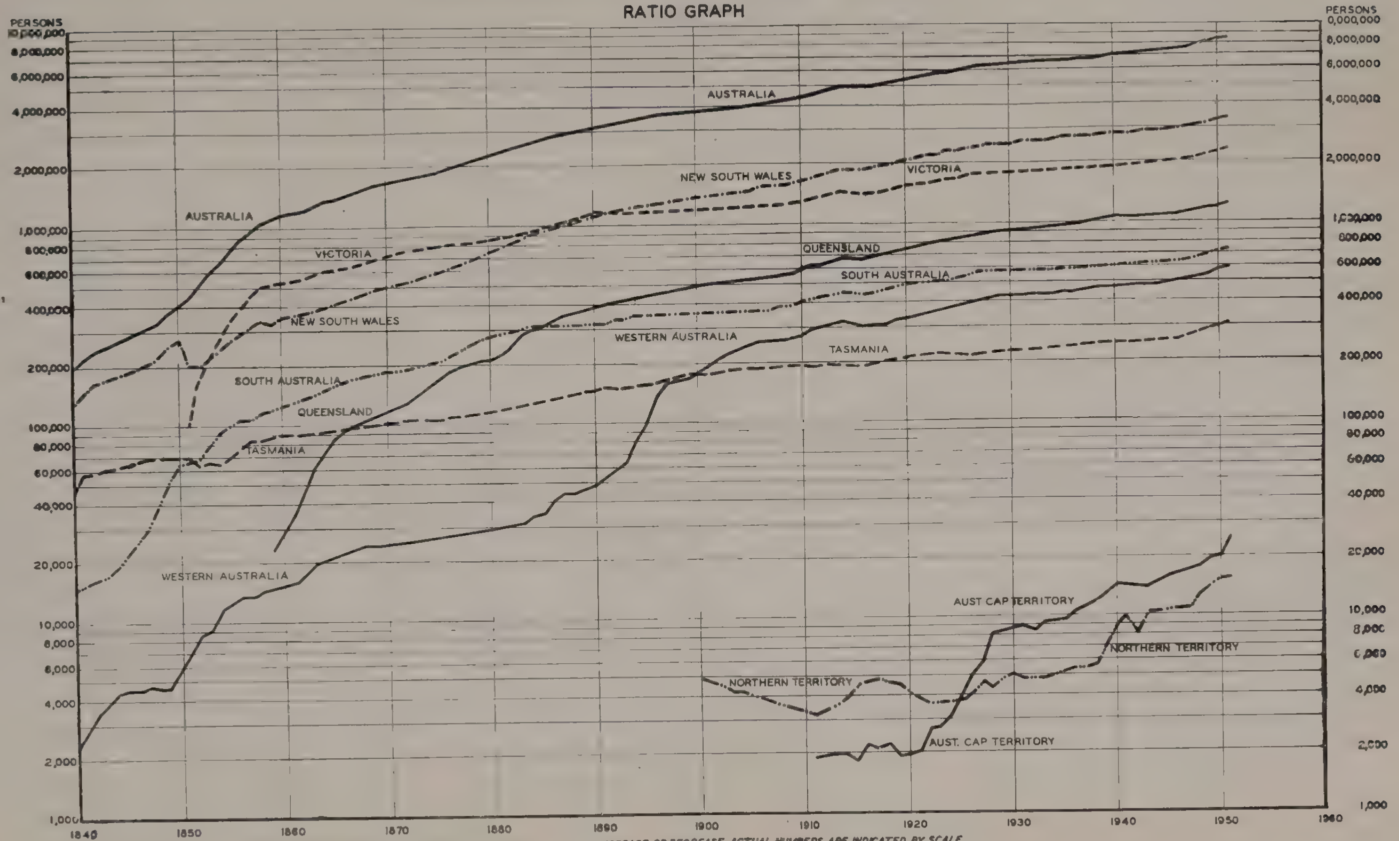
POPULATION : MASCULINITY IN VARIOUS COUNTRIES.

Country.	Year.	Number of Males to each 100 Females.	Country.	Year.	Number of Males to each 100 Females.
Canada	1949	103.6	Belgium	1949	97.2
Eire	1946	102.4	Japan	1948	96.4
Australia(b)	1950	101.9	Northern Ireland ..	1950	95.9
Union of South Africa(a)	1948	101.4	Italy	1947	95.5
New Zealand(c) ..	1950	100.8	Scotland	1950	95.1
Netherlands ..	1948	99.3	Czechoslovakia ..	1947	94.5
Sweden	1948	99.3	England and Wales..	1950	94.3
United States of America	1949	99.0	Spain	1949	93.9
Denmark	1948	98.3	France	1950	92.9
Greece	1949	98.0	Poland	1950	90.0
Norway	1948	97.3	Germany	1946	79.9

(a) White population only. (b) Excludes full-blood aboriginals. (c) Excludes Maoris.

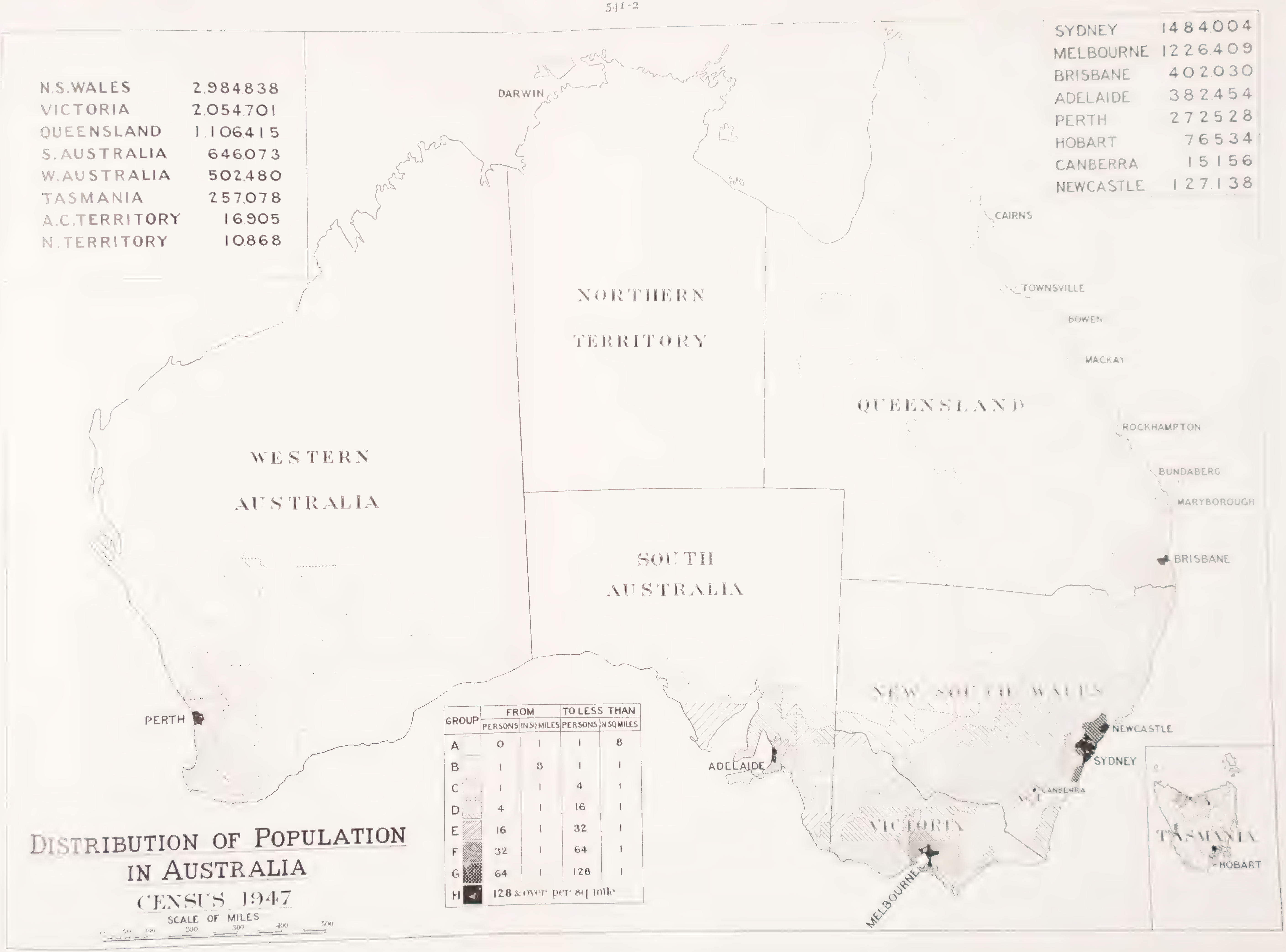
POPULATION OF AUSTRALIA, 1840 TO 1951

RATIO GRAPH



NOTE :- VERTICAL SCALE IS LOGARITHMIC, AND THE CURVES RISE AND FALL ACCORDING TO RATE OF INCREASE OR DECREASE, ACTUAL NUMBERS ARE INDICATED BY SCALE.

(See page 520.)


DARWIN
NORTHERN TERRITORY
WESTERN AUSTRALIA
SOUTH AUSTRALIA
QUEENSLAND
NEW SOUTH WALES
VICTORIA
TASMANIA
CAIRNS
TOWNSVILLE
BOWEN
MACKAY
ROCKHAMPTON
BUNDABERG
MARYBOROUGH
BRISBANE
NEWCASTLE
SYDNEY
CANBERRA
A.C.T.
ADELAIDE
MELBOURNE
HOBART
PERTH
SCALE OF MILES
50
100
200
300
400
500

DISTRIBUTION OF POPULATION IN AUSTRALIA

CENSUS 1947

N.S.WALES	2.984.838
VICTORIA	2.054.701
QUEENSLAND	1.106.415
S.AUSTRALIA	646.073
W.AUSTRALIA	502.480
TASMANIA	257.078
A.C.TERRITORY	16.905
N.TERRITORY	10.868

SYDNEY	1484.004
MELBOURNE	1226.409
BRISBANE	402.030
ADELAIDE	382.454
PERTH	272528
HOBART	76534
CANBERRA	15.156
NEWCASTLE	127.138

GROUP		FROM		TO LESS THAN	
		PERSONS	IN SQ MILES	PERSONS	IN SQ MILES
A	☐	0	1	1	8
B	☐	1	8	1	1
C	⬚	1	1	4	1
D	⬚	4	1	16	1
E	▨	16	1	32	1
F	▒	32	1	64	1
G	▓	64	1	128	1
H	■	128 & over per sq mile			

2. **Age Distribution.**—The precise age distribution of the population is obtained only at a Census; for other times it is estimated in accordance with data available. The following table shows the variation which took place in the age distribution of the population during the 14 years following the 1933 Census.

Of the 7,579,358 persons enumerated at the 1947 Census, 10.0 per cent. were under 5 years of age; 8.0 per cent. were 5 years of age and under 10 years; 7.1 per cent. from 10 to 14 years; 7.7 per cent. 15 to 19 years; and 34.4 per cent. were under age 21. At the 1933 Census 8.6 per cent. were under 5 years; 9.5 per cent. 5 to 9 years; 9.4 per cent. 10 to 14 years; 9.3 per cent. 15 to 19 years; and 38.6 per cent. under 21 years of age.

Owing mainly to the fall in the birth-rate, the number of young people in Australia in the age group 5 to 19 years in 1947 showed a serious decline of 142,680 compared with the number in this age-group in 1933. The corresponding increase in this age-group from 1921 to 1933 was 277,154 persons. Although the decrease in the 5 to 19 years age-group in 1947 is offset by an increase of 191,422 persons in the age-group 0 to 4 years, the proportion of persons under 21 years of age in Australia has decreased from 38.6 per cent. in 1933 to 34.4 per cent. in 1947 whilst the proportion of persons aged 21 years and over has increased from 61.4 per cent. to 65.6 per cent. over the same period.

In order to provide information as to changes in the age distribution of the population since the last census estimates have been made to show the population at each age as at 30th June of each year 1948 to 1950. These estimates are based on the adjusted age distribution for the Census of 30th June, 1947, and on births, recorded ages at death and recorded ages of migrants from 1st July, 1947 to 30th June, 1950.

Particulars of the estimates for single years of age are published in *Demography Bulletins* No. 67, 1949 and No. 68, 1950 for their respective years. Summarized in five-yearly age groups they are as follows:—

POPULATION: AGE DISTRIBUTION, AUSTRALIA, 1947 AND 1950.

(EXCLUDING FULL-BLOOD ABORIGINALS.)

Age Group (Years).	Census 30th June, 1947.(a)			Estimated 30th June, 1950.		
	Males.	Females.	Persons.	Males.	Females.	Persons.
0– 4	388,301	372,086	760,387	451,246	430,560	881,806
5– 9	307,697	296,286	603,983	358,415	345,481	703,896
10–14	271,761	262,922	534,683	297,891	287,116	585,007
15–19	297,524	289,142	586,666	283,619	271,502	555,121
20–24	309,490	308,464	617,954	330,966	311,962	642,928
25–29	297,497	300,889	598,386	347,016	331,350	678,366
30–34	297,531	300,567	598,098	308,906	302,421	611,327
35–39	285,309	275,637	560,946	316,888	306,170	623,058
40–44	258,008	238,284	496,292	286,955	265,473	552,428
45–49	236,381	229,347	465,728	253,942	235,488	489,430
50–54	207,515	217,473	424,988	216,393	221,308	437,701
55–59	198,928	198,521	397,449	197,620	208,407	406,027
60–64	159,157	164,552	323,709	173,659	180,093	353,752
65–69	116,511	126,863	243,374	129,403	142,288	271,691
70–74	76,919	90,481	167,400	83,131	98,791	181,922
75 and over ..	88,841	110,474	199,315	91,121	119,960	211,081
Total ..	3,797,370	3,781,988	7,579,358	4,127,171	4,058,370	8,185,541
Under 21	1,324,623	1,280,353	2,604,976	1,453,378	1,393,845	2,847,223
21 and over ..	2,472,747	2,501,635	4,974,382	2,673,793	2,664,525	5,338,318
Total ..	3,797,370	3,781,988	7,579,358	4,127,171	4,058,370	8,185,541

(a) Unspecified ages have been distributed over the population aged 15 years and upwards.

The next table shows the change which has been taking place in the age composition of the population of Australia since 1871. Each successive Census except 1921 has revealed a larger proportion of the population 15 years of age and over than was recorded at the previous Census. Since the 1947 Census, however, available information on which estimates of the age distribution is based indicates that there has been a reversal of this tendency.

POPULATION : PROPORTIONATE AGE DISTRIBUTION, AUSTRALIA, 1871 TO 1950.

(Per cent.)

Census	Males.				Females.				Persons.			
	Under 15 years.	15 and under 65.	65 and over.	Total.	Under 15 years.	15 and under 65.	65 and over.	Total.	Under 15 years.	15 and under 65.	65 and over.	Total.
1871	38.84	59.11	2.05	100	46.02	52.60	1.38	100	42.09	56.17	1.74	100
1881	36.36	60.81	2.83	100	41.86	56.03	2.11	100	38.89	58.61	2.50	100
1891	34.80	62.01	3.19	100	39.38	58.09	2.53	100	36.92	60.19	2.89	100
1901	33.89	61.80	4.31	100	36.51	59.88	3.61	100	35.14	60.88	3.98	100
1911	30.84	64.82	4.34	100	32.52	63.28	4.20	100	31.65	64.08	4.27	100
1921	31.64	63.88	4.48	100	31.79	63.83	4.38	100	31.71	63.86	4.43	100
1933	27.53	66.09	6.38	100	27.42	65.99	6.59	100	27.48	66.04	6.48	100
1947	25.48	67.08	7.44	100	24.63	66.71	8.66	100	25.05	66.90	8.05	100
950(*a*)	26.83	65.81	7.36	100	26.20	64.91	8.89	100	26.52	65.36	8.12	100

(*a*) Latest estimate, 30th June.

3. **Conjugal Condition.**—Of the total population of Australia at the 1947 Census, 47.3 per cent. had never married ; 46.4 per cent. were married ; 5.6 per cent. widowed ; and 0.7 per cent. divorced. Since the 1933 Census the number never married had decreased by 2.4 per cent. ; those married increased by 35.2 per cent. ; the widowed by 28.4 per cent. ; and the divorced by 148 per cent.

From a demographic point of view the most important change in the conjugal condition of the population of Australia since 1933 was the decrease in the number of persons who had never married and the relative increase in the number of married persons. In 1947, 62.0 per cent. of all persons 15 years of age and over, who stated their conjugal condition, were married, compared with 54.2 per cent. in 1933. If the latter proportion had obtained in 1947 there would have been approximately 440,000 fewer married persons at 30th June, 1947.

The number of widowed females recorded in Australia in 1947 was 309,383, or nearly three times as many as the number of widowed males. This disparity is the result of two influences. The first is the greater longevity of females coupled with the usually younger age at marriage ; and the second is that a larger proportion of males cancel their widowhood by remarriage.

The number of divorced persons increased by 31,280 between 1933 and 1947 compared with an increase of 12,585 between 1921 and 1933. The numbers of divorced males and females at 30th June, 1933 in the following table differ slightly from those shown on page 269 where the conjugal conditions of those for whom particulars were not given at the Census have been distributed proportionately among the various groups

POPULATION : CONJUGAL CONDITION, AUSTRALIA, 1933 AND 1947.

(EXCLUDING FULL-BLOOD ABORIGINALS.)

Conjugal Condition.	Census, 30th June, 1933.			Census, 30th June, 1947.			Increase, 1933–47.
	Males.	Females.	Persons.	Males.	Females.	Persons.	
Never Married—							
Under 15 years of age ..	926,924	894,643	1,821,567	967,759	931,294	1,899,053	77,486
15 years of age and over	1,018,587	825,448	1,844,035	929,212	748,414	1,677,626	−166,400
Total	1,945,511	1,720,091	3,665,602	1,896,971	1,679,708	3,576,679	− 88,923
Married(*a*)	1,299,693	1,293,922	2,593,615	1,751,635	1,754,775	3,506,410	912,795
Widowed	97,775	230,180	327,955	111,680	309,383	421,063	93,108
Divorced	10,251	10,862	21,113	24,952	27,441	52,393	31,280
Not Stated	13,881	7,673	21,554	12,132	10,681	22,813	1,259
Total	3,367,111	3,262,728	6,629,839	3,797,370	3,781,988	7,579,358	949,519

(*a*) Includes persons permanently separated (legally or otherwise).

NOTE.—Minus sign (−) denotes decrease.

4. **Dependent Children under 16 years of age.**—At the 1947 Census 927,453 males and 66,418 females stated they had children under 16 years of age dependent on them at 30th June, 1947, the total number of dependent children under age 16 claimed being 1,962,791, of whom 1,853,314 or 94.4 per cent. were dependent on males and 109,477 or 5.6 per cent. were dependent on females. This represented an average of 2.00 for each male with dependent children and 1.65 for each female with dependent children.

Further information concerning dependent children may be found in Official Year Book No. 38, page 549.

POPULATION : PERSONS WITH DEPENDENT CHILDREN UNDER SIXTEEN YEARS OF AGE, AUSTRALIA, CENSUS, 30th JUNE, 1947.

(EXCLUDING FULL-BLOOD ABORIGINALS.)

Particulars.	Persons with Dependent Children Numbering—								Total Persons with Dependent Children.
	1.	2.	3.	4.	5.	6.	7.	8 and over.	
Males	401,464	291,739	136,819	57,036	23,223	10,395	4,114	2,663	927,453
Females	39,683	16,482	6,233	2,578	1,036	263	96	47	66,418
Persons	441,147	308,221	143,052	59,614	24,259	10,658	4,210	2,710	993,871
Total number of Dependent Children..	441,147	616,442	429,156	238,456	121,295	63,948	29,470	22,877	1,962,791

5. **Birthplace.**—At 30th June, 1947, the Australian-born element of the population of Australia represented 90.2 per cent. as compared with 86.4 per cent. at the 1933 Census. The number of Australian-born increased by 1,108,605 or by 19.4 per cent. since 1933, the total at June, 1947, being 6,835,171. On the other hand, the population born overseas declined during the same period by 159,086 or by 17.6 per cent. The principal contribution to the decline of the oversea-born population was the decrease of approximately 171,000 in the number of persons born in the British Isles. At 30th June, 1947, Australian residents born in England, Wales, Scotland and Ireland numbered 541,267, while those born in other European countries numbered 110,339, and there were 43,610 of New Zealand birth.

There was little change during the intercensal period in the number of persons of Asiatic, African or American birthplace, but persons born in these continents form a very small proportion of the population of Australia. The numbers of such persons at 30th June, 1947 were respectively 24,096 (British India and Ceylon, 8,160, China 6,404), 7,537 (Union of South Africa, 5,866), and 11,630 (Canada, 4,009, United States of America, 6,232)

Of persons born outside Australia, 56 per cent. were males and 44 per cent. females.

For a table showing the number of persons in Australia at each of the last two census dates, classified according to birthplace, reference should be made to Official Year Book No. 38, page 550.

6. **Period of Residence in Australia.**—The decline, until recently, in immigration into Australia is reflected in the figures recorded at the June, 1947 Census. They show that, of persons born outside Australia who stated their period of residence, 5.7 per cent. had resided in Australia for a period of less than 5 years, 11.2 per cent. for less than 10 years, and 14.8 per cent. for less than 15 years, compared with 5.7, 25.5 and 39.5 per cent. respectively at the previous Census in 1933.

A table showing, for each of the last two census dates, the number of completed years of residence of persons born outside Australia may be found on page 551 of Official Year Book No. 38.

7. **Nationality.**—At the 1947 Census the number of foreign nationals in Australia had decreased since the 1933 Census by 36 per cent.—males by 40 per cent. and females by 18 per cent.—as compared with an increase of 15 per cent. in the number of British nationality. There was little change, however, in the proportion of foreign nationals relative to the total population, 99.5 per cent. of the population being British subjects, as compared with 99.1 per cent. at the previous Census. The principal foreign nationals in Australia were Italian, 7,172; Chinese, 4,858; Greek, 4,504; United States of America, 3,351; German, 2,361; Yugoslav, 2,096; and Dutch, 2,001.

The number of persons in Australia who were born in countries outside the British Commonwealth totalled approximately 128,000, and of this number 38,653, or 30 per cent., were of foreign nationality at 30th June, 1947, the remainder being British subjects mainly by naturalization.

A table showing the nationality of Australian residents at 30th June, 1933 and 30th June, 1947 may be found in Official Year Book No. 38, page 552.

8. **Race.**—The people of Australia may be classified into two groups with respect to racial characteristics, namely, non-indigenous and indigenous. The former group comprises the European and other races who have migrated to Australia and their descendants born in Australia, while the latter group consists of the full-blood aboriginal natives of Australia whose estimated number at 30th June, 1944, was about 47,000, but who are not included in the general population figures of Australia. The non-indigenous population of Australia is fundamentally British in race and nationality.

At 30th June, 1947, 7,524,129 persons or 99.3 per cent. of the population were of full-blood European race and 0.7 per cent. of non-European and half-caste. Full-blood non-Europeans decreased from 22,780 in 1933 to 21,495 in 1947, but the number of half-castes increased from 27,066 to 33,734 during the same period.

The principal full-blood non-Europeans in Australia were Chinese, 9,144; Polynesian, 5,332; Natives of India, 2,480; and Syrian, 1,675; while half-caste Australian aboriginals, who increased from 20,620 in 1933 to 27,179 in 1947, represented 80.6 per cent. of the total half-caste population. A table showing the comparative numbers of each sex at each of the last two census dates, classified according to race, may be found in Official Year Book No. 38, page 553.

9. **Religion.**—At the 1921 Census 92,258 persons in Australia, or 1.7 per cent., gave no reply to this question, but in 1933 and again at the 1947 Census, when the public was informed there was no legal obligation to answer this question, 848,948 persons, or 12.8 per cent., and 824,824 or 10.9 per cent., respectively, gave no reply. Of males 11.7 per cent. and of females 10.0 per cent. did not state their religion in 1947.

Of those who stated their religion, the greatest numerical increase during the intercensal period between 1933 and 1947 was recorded by the Church of England, followed by the Roman Catholic and Catholic (so described), which it is thought may be grouped without serious error, as the latter term usually signifies Roman Catholic. Then followed Methodist, Presbyterian and Church of Christ in that order. Amongst the denominations with the largest number of adherents, the greatest proportional increases since 1933 were recorded by Methodists, 27.4 per cent.; Roman Catholic and Catholic combined, 21.8 per cent.; Church of England, 15.3 per cent.; and Presbyterian, 4.2 per cent.

In 1933 and again in 1947, 99 per cent. of those who stated their religion professed the Christian faith. Since the previous Census, the number who stated they were of non-Christian religion increased by 28 per cent., and those specifically stating they had no religion increased by 71 per cent.

The number of stated adherents at 30th June, 1947 was greatest for the Church of England, at 2,957,032; then followed Roman Catholic and Catholic combined (1,569,726), Methodist (871,425), Presbyterian (743,540), and Baptist (113,527). In all, 6,672,936 professed the Christian faith, 36,562 stated they were of non-Christian religion, 18,708 were classified as indefinite, while 26,328 professed no religion.

Further information relative to the religions of the population may be found in a table on page 554 of Official Year Book No. 38.

10. **Industry.**—In the following table the male and female populations of Australia are classified according to the industry in which they are usually engaged. At the Census on 30th June, 1947, 124,439 persons failed to answer the question relating to industry, and the replies of 108,095 persons did not give an entirely satisfactory description of their industry. For practically all of these persons occupation particulars were recorded, and in the table below it has been possible to allocate them to their appropriate industries on the basis of occupational representation in those industries which were adequately described on the Census schedules. The number of persons "in the work force" was 3,196,431, of whom 2,479,269 were males and 717,162 were females. The remainder of the population, totalling 4,382,927 (1,318,101 males and 3,064,826 females), were classified as not being in the work force. The term "in the work force" includes persons of all ages who are employers, self-employed or working on their own account, wage and salary earners, unpaid helpers engaged in industry, and those who usually work for their living but who have lost their jobs.

Persons who do not earn their living by doing work for monetary reward, such as children, housewives, full-time students, retired persons, pensioners, and permanent inmates of institutions are regarded as not being in the work force.

On the average, 65 in every 100 of the male population and 19 in every 100 of the female population were in the work force, or in other words there were, in 1947, 3½ males to every female in the work force.

Of the males in the work force, those engaged in Manufacturing represented the largest proportion, namely 28.7 per cent., followed next in order by those in Primary Production, 19.4 per cent.; Commerce, 12.0 per cent.; Building and Construction, 10.7 per cent.; Transport and Storage, 10.3 per cent.; and Public Authority (n.e.i.) and Professional Activities, 8.8 per cent.

As with the males, females in the work force were mostly engaged in Manufacturing, 28.6 per cent.; followed next in order by those in Public Authority (n.e.i.) and Professional Activities, 20.8 per cent.; Commerce, 19.6 per cent.; and Amusement, Hotels, Cafés, Personal Service, etc., 19.3 per cent.

POPULATION CLASSIFIED ACCORDING TO INDUSTRY(*a*) : AUSTRALIA, 1947.

(EXCLUDING FULL-BLOOD ABORIGINALS.)

Industry Group.	Census, 30th June, 1947.		
	Males.	Females.	Persons.
Primary Production—			
Fishing, Hunting and Trapping	16,547	88	16,635
Agriculture, Grazing and Dairying—			
Agriculture and Mixed Farming	235,455	8,030	243,485
Grazing	90,676	5,044	95,720
Dairying	97,005	10,049	107,054
Other	17,020	1,416	18,436
Total, Agriculture, etc.	440,156	24,539	464,695
Forestry	24,653	50	24,703
Total	481,356	24,677	506,033
Mining and Quarrying	56,944	630	57,574
Manufacturing—			
Inadequately Defined	6,638	3,369	10,007
Founding, Engineering and Metalworking (including Shipbuilding)	211,228	20,809	232,037
Manufacture of Clothing	21,214	75,062	96,276
Manufacture of Food and Drink	104,752	21,707	126,459
Paper, Printing, Bookbinding and Photography	45,791	17,268	63,059
Other	322,663	67,227	389,890
Total	712,286	205,442	917,728
Building and Construction—			
Inadequately Defined	147	..	147
Construction and Repair of Buildings ..	139,998	1,048	141,046
Construction Works and Maintenance (other than Buildings)	125,004	451	125,455
Total	265,149	1,499	266,648
Transport and Storage—			
Transport, undefined	4,613	366	4,979
Road Transport and Storage	118,731	5,526	124,257
Shipping and Loading and Discharging Vessels..	50,557	1,909	52,466
Rail and Air Transport	80,600	7,891	88,491
Total	254,501	15,692	270,193
Communication	36,461	16,391	52,852
Finance and Property	55,535	24,353	79,888
Commerce	296,689	140,842	437,531
Public Authority (n.e.i.) and Professional Activities	217,583	149,140	366,723
Amusement, Hotels, Cafés, Personal Service, etc..	102,712	138,464	241,176
Other Industries	53	32	85
Persons in the Work Force	2,479,269	717,162	3,196,431
Persons not in the Work Force..	1,318,101	3,064,826	4,382,927
Total Population	3,797,370	3,781,988	7,579,358

(*a*) The numbers of persons whose industry was either not specified or inadequately described have been distributed (*see* letterpress above).

11. **Occupational Status.**—The term "occupational status" has been substituted for "grade of occupation" formerly in use, and it relates to the capacity in which persons are engaged in the various branches of industry.

The number of employers in Australia at 30th June, 1947, was 221,289 compared with 207,680 at the previous Census. Persons who were self-employed or working on their own account increased from 369,375 in 1933 to 387,137 in 1947. The number of employees in receipt of salaries or wages increased from 1,618,504 in 1933 to 2,447,493 in 1947, but in this connexion it should be remembered that the number who were out of a job at the 1933 Census, which was taken during the depression, was 481,044 compared with only 82,774 in 1947. Helpers not in receipt of salaries or wages declined from 46,016 in 1933 to 28,725 in 1947.

At the Census of 30th June, 1947, 29,013 persons gave no answer to the question regarding occupational status, but disclosed that all of these persons belonged to the work force. Including the latter, the total number in the work force in 1947 was 3,196,431, consisting of 2,479,269 males and 177,162 females.

In 1933, wage-earners who were employed part-time were asked to indicate that fact on the Census Schedule in answer to the question regarding occupational status, and all those who so described themselves are included in the work force for that year. In 1947, however, persons working regularly, but for considerably less than normal working hours, were instructed on the Census Schedule to exclude themselves from the work force, unless their earnings from such work formed their principal means of livelihood.

POPULATION: OCCUPATIONAL STATUS, AUSTRALIA, 1933 AND 1947.

(Excluding Full-blood Aboriginals.)

Occupational Status.	Census, 30th June, 1933.			Census, 30th June, 1947.			Increase, 1933–47.
	Males.	Females.	Persons.	Males.	Females.	Persons.	
In Work Force—							
At Work—							
Employer	186,849	20,831	207,680	196,932	24,357	221,289	13,609
Self-employed ..	318,951	50,424	369,375	342,650	44,487	387,137	17,762
Employee (on wage or salary)	1,184,002	434,502	1,618,504	1,827,072	620,421	2,447,493	828,989
Helper (not on wage or salary)	40,754	5,262	46,016	24,227	4,498	28,725	− 17,291
Total at Work ..	1,730,556	511,019	2,241,575	2,390,881	693,763	3,084,644	843,069
Not at Work (*a*) ..	405,269	75,775	481,044	66,009	16,765	82,774	−398,270
Not Stated	4,480	1,178	5,658	22,379	6,634	29,013	23,355
Total in Work Force	2,140,305	587,972	2,728,277	2,479,269	717,162	3,196,431	468,154
Not in Work Force (*b*) ..	1,226,806	2,674,756	3,901,562	1,318,101	3,064,826	4,382,927	481,365
Grand Total ..	3,367,111	3,262,728	6,629,839	3,797,370	3,781,988	7,579,358	949,519

(*a*) Includes persons who were (1) unable to secure employment; (2) temporarily laid off from their jobs; or (3) not actively seeking work at the time of the Census on account of sickness or accident, industrial dispute, resting between jobs or for any other reason. (*b*) *See* last preceding paragraph above.

Note.—Minus sign (−) denotes decrease.

12. **Persons not at Work.**—The number of persons who were usually engaged in industry, business, trade or service but were out of a job on 30th June, 1947 was 82,774, consisting of 66,009 males and 16,765 females, or 3.5 per cent. of the males and 2.6 per cent. of the females in the wage-earning group, including those not at work. At the previous Census, which was taken in 1933 during the depression, 405,269 males and 75,775 females were unemployed, representing 25.5 per cent. of the males and 14.8 per cent. of the females in the wage-earning group. During the period of heavy unemployment in 1933 approximately 91 per cent. of unemployment was due to scarcity of work, but in 1947 only 41 per cent. was due to this cause. The balance consisted of those who stated that they were not actively seeking work at the time of the Census, and these in turn consisted almost entirely, and in approximately equal proportions, of those who were indisposed through sickness or accident, and those who were resting between jobs.

Of those persons usually in industry, business, trade or service, who at the 1947 Census stated the period since last working, 7.0 per cent. had not been working for a period of less than one week, 16.4 per cent. for less than two weeks, 25.2 per cent. for less than three weeks, 32.4 per cent. for less than four weeks, 50.1 per cent. for less than eight weeks, and 67.9 per cent. for under sixteen weeks.

Tables showing persons not at work at 30th June, 1947, classified according to cause and duration, may be found in Official Year Book No. 38 (*see* pp. 1303 and 1304).

13. **Other General Characteristics.**—Questions regarding orphanhood, and the ability to read and write a foreign language (of persons who could not read and write English), were not asked on the schedules of the 1947 Census. Consequently, the latest Census data available concerning these questions are those of the 1933 Census, as published in previous issues of the Year Book (*see* No. 36, pp. 482 and 487).

§ 8. Dwellings.

1. **General.**—In addition to the questions relating to the personal particulars of the individual members of the household there were a number of important questions on the Census Schedule designed to elicit information concerning the dwellings in which the population was housed at the date of the Census. From the replies to these questions much valuable information was tabulated concerning housing conditions. In Official Year Book No. 38, pages 557 to 571, a comprehensive summary of this information was published but some detailed tables have been omitted from the present issue in order to conserve space. For the purpose of a Census a "dwelling" is defined as a room or a collection of rooms occupied by a household group living together as a "family unit" whether comprising the whole or only part of a house or other building (including temporary structures). Included in this definition are private houses, flats, tenements, hotels, boarding houses, hospitals, institutions, and any other structure used for the purpose of human habitation.

2. **Number of Dwellings.**—During the period 1933 to 1947, the number of dwellings in Australia, including those being built, increased by 371,194, or 22.9 per cent., a much higher rate of increase than that of the population during the same period, namely 14.3 per cent.

The following table represents a summary of the information relating to the number of dwellings in Australia at 30th June, 1947.

DWELLINGS: STATES, CENSUS, 30th JUNE, 1947.

(EXCLUDING DWELLINGS OCCUPIED SOLELY BY FULL-BLOOD ABORIGINALS.)

State or Territory.	Number of Dwellings.				Proportion of Total Dwellings.
	Occupied.	Unoccupied.	Being Built.	Total.	
					%
New South Wales ..	746,343	17,392	12,981	776,716	39.03
Victoria	527,406	11,412	11,328	550,146	27.65
Queensland	272,045	9,647	4,175	285,867	14.37
South Australia	168,538	3,547	2,794	174,879	8.79
Western Australia ..	124,767	2,606	1,535	128,908	6.48
Tasmania	62,484	2,351	1,607	66,442	3.34
Northern Territory ..	2,697	34	22	2,753	0.14
Australian Capital Territory	3,615	52	316	3,983	0.20
Australia	1,907,895	47,041	34,758	1,989,694	100.00
Urban—					
Metropolitan ..	981,420	7,397	17,871	1,006,688	50.59
Provincial	332,543	7,363	6,679	346,585	17.42
Rural	593,932	32,281	10,208	636,421	31.99
Total	1,907,895	47,041	34,758	1,989,694	100.00

Between 30th June, 1947, and 31st December, 1950, 185,168 new houses and 4,498 new flats were completed in Australia, while at 31st December, 1950 there were 71,347 houses and 3,334 flats being built.

3. **Class of Occupied Dwelling, Etc., and Inmates.**—As previously indicated, the dwellings in which the people are housed comprise private houses, tenements, flats, hotels, boarding-houses, charitable institutions, etc. It is desirable when considering the question of housing to exclude those forms of accommodation which do not represent the normal housing conditions associated with family life, and the statistics which follow relate mainly to private dwellings only, i.e., private houses, shares of private houses, tenements and flats.

For Census purposes a "flat" is defined as part of a house or other building ordinarily intended for occupation by a separate family group, and is a self-contained dwelling unit with both cooking and bathing facilities. A "tenement" is part of a house or other building ordinarily intended for occupation by a separate family group but is not a self-contained unit, and consists in the main of a room or rooms with cooking facilities.

Owing to the shortage of houses in Australia in 1947, information was sought at the Census as to the extent of house-sharing, and particulars as recorded are shown separately for 1947 in the following tables. In a number of cases where private houses were shared by more than one family unit, however, only one Householder's Schedule was returned for the whole of the house, instead of separate schedules for each portion occupied separately. These are shown in the tables as "Private Houses (Shared by Two or More Families)" and represent not "occupied dwellings" as defined for Census purposes, but "houses" occupied by more than one family.

In the case of the remaining private houses shared by more than one family, separate schedules were furnished for each portion occupied separately and these portions are shown in the tables as separate dwellings under the heading "Share of Private House".

In the next table, occupied dwellings are distributed according to class and the total number of persons in Australia are distributed according to the dwellings in which they were recorded on Census night. At the 1947 Census 1,873,623, or 98.2 per cent. of the total occupied dwellings in Australia, were private dwellings, as compared with 1,509.071, or 97.6 per cent., at the 1933 Census. During the intercensal period the number of private dwellings in Australia increased by 363,952, or 24.1 per cent.; those in the metropolitan areas increased by 248,581, or 34.9 per cent.; those in the urban provincial by 76,466, or 30.6 per cent., and those in the rural areas by 38,905, or 7.1 per cent.

Of the total population in 1947, 92.71 per cent. were living in private dwellings —houses, flats and tenements—whilst 552,598 persons, or 7.29 per cent. of the population, spent the night in hotels, boarding houses, hospitals, institutions, etc., or on ships or were camping out.

CLASS OF OCCUPIED DWELLING, ETC. AND INMATES: AUSTRALIA, CENSUS, 30th JUNE, 1947.

(EXCLUDING FULL-BLOOD ABORIGINALS AND DWELLINGS OCCUPIED SOLELY BY THEM.)

Particulars.	Number of Occupied Dwellings.				Inmates.(*a*)			
	Urban.		Rural.	Total.	Urban.		Rural.	Total.
	Metropolitan.	Provincial.			Metropolitan.	Provincial.		
Private House (One Family)	739,870	284,133	561,250	1,585,253	2,892,194	1,107,052	2,139,086	6,138,332
Private House (Shared by Two or more Families((*b*)	20,808	5,765	6,226	32,799	116,235	33,085	35,969	185,289
Share of Private House(*c*)	72,724	19,627	13,660	106,011	203,390	58,651	41,955	303,996
Flat (including Share of Flat)	94,822	12,697	3,880	111,399	265,259	38,823	12,033	316,115
Tenement	33,263	3,855	1,043	38,161	70,594	9,579	2,855	83,028
Total Occupied Private Dwellings	961,487	326,077	586,059	1,873,623	3,547,672	1,247,190	2,231,898	7,026,760
Total Other Occupied Dwellings	19,933	6,466	7,873	34,272	293,819	112,945	113,440	520,204
Total Occupied Dwellings	981,420	332,543	593,932	1,907,895	3,841,491	1,360,135	2,345,338	7,546,964
Total Occupied Dwellings per Square mile	771.92	121.89	0.20	0.64	..	..	..	..
Wagon, Van, etc. (including Campers-out) ..	847	1,029	3,997	5,873	2,468	2,413	8,910	13,791
Total Population ..	..	..	..	..	3,843,959	1,362,548	2,354,248	7,579,358 (*d*)

(*a*) Includes all persons sleeping out on verandahs or in sleep-outs. (*b*) Private house shared by two or more family units or household groups in respect of which only one Householders' Schedule was furnished. (*c*) Portions of shared private houses in respect of which portions separate Householders' Schedules were furnished. (*d*) Includes 18,603 migratory (shipping, railway and air travellers).

4. Occupied Private Dwellings.—(i) *Materials of Outer Walls and of Roof.* In the following table occupied private dwellings are classified according to the materials of which the outer walls and the roof were built.

Wood has been the most extensively used material in the construction of the walls, followed by brick and fibro cement, the respective proportion for Australia for occupied private dwellings for which the material of the walls was specified being—wood, 47.4

per cent., brick, 34.8 per cent. and fibro cement, 6.3 per cent. The latter has shown a most spectacular increase since 1933 when the number recorded was only 23.696 compared with 117,631 in 1947. Brick dwellings represented 57.6 per cent. of all occupied private dwellings in the Metropolitan Divisions whilst in the Urban Provincial and Rural Divisions wooden dwellings predominated, the respective proportions of such dwellings being 63.0 per cent. and 62.4 per cent.

OCCUPIED PRIVATE DWELLINGS CLASSIFIED ACCORDING TO MATERIAL OF OUTER WALLS: AUSTRALIA, 1933 AND 1947.

(EXCLUDING DWELLINGS OCCUPIED SOLELY BY FULL-BLOOD ABORIGINALS.)

Material of Outer Walls.	Number of Occupied Private Dwellings.								
	Census, 30th June, 1933.				Census, 30th June, 1947.				Increase, 1933–47.
	Urban.		Rural.	Total, Australia.	Urban.		Rural.	Total, Australia.	
	Metropolitan.	Provincial.			Metropolitan.	Provincial.			
Brick ..	393,528	45,320	29,071	467,919	551,618	60,215	38.179	650,012	182,093
Stone ..	30,149	11,588	38,466	80,203	36,714	13,409	37,573	87,696	7,493
Concrete ..	5,908	2,912	8,705	17,525	10,442	5,411	13,283	29,136	11,611
Wood ..	266,528	166,990	353,753	787,271	315,567	204,863	364,221	884,651	97,380
Iron, Tin ..	4,918	13,527	53,767	72,212	6,087	14,498	45,347	65,932	− 6,280
Fibro Cement	5,847	3,773	14,076	23,696	31,924	23,586	62,121	117,631	93,935
Calico, Canvas, Hessian ..	873	3,554	33,428	37,855	656	1,539	13,255	15,450	− 22,405
Other Materials	3,164	1,221	12,924	17,309	4,430	1,774	9,902	16,106	− 1,203
Not stated ..	1,991	726	2,964	5,681	4,049	782	2,178	7,009	1,328
Total Private Dwellings	712,906	249,611	547,154	1,509,671	961,487	326,077	586,059	1,873,623	363,952

NOTE.—Minus sign (−) denotes decrease.

Particulars regarding the materials of which the roofs of dwellings were constructed were not collected at the 1933 Census, but the results for 1947 show that, of the occupied private dwellings for which the materials of the roofs were specified, 1,257,559 (68.1 per cent.), had roofs of iron, which was by far the most popular material used for roofing private dwellings in Australia, 418,014 (22.6 per cent.) had tiled roofs, 107,048 (5.8 per cent.) had slate roofs, 35,985 (2.0 per cent.) had roofs of fibro-cement, 13,344 (0.7 per cent.) had calico, canvas, or hessian roofs, while 15,418 (0.8 per cent.) had roofs of other materials. The material of which the roof was constructed was not stated in 26,255 cases (1.5 per cent. of the total).

(ii) *Number of Rooms.* For Census purposes, the kitchen and any permanently enclosed sleep-out or portion of a verandah were included in the number of rooms in the dwelling, but the bathroom, pantry, laundry and storehouse were excluded unless generally used for sleeping. The average number of rooms per private house (one family) in Australia at 30th June, 1947, was 5.11 which was slightly higher than the average of 5.07 rooms for all private houses in 1933. The average number of rooms per private house (one family) in 1947 was highest in the metropolitan areas, namely 5.27 rooms and lowest in the rural areas, 4.89 rooms.

The average number of rooms for tenements and for flats was less than that for private houses, the average for tenements being 2.07 rooms and for flats 4.06 rooms. Tenements and flats were not recorded separately at the Census of 30th June, 1933, but the combined average at that date was 3.35 rooms.

Excluding houses with rooms unspecified, private houses of four, five and six rooms represented 79.3 per cent. of the total number of private houses (one family) in Australia at 30th June, 1947, and practically the whole of the total increase in the number of private houses since 1933 has been confined to houses containing these numbers of rooms.

The following table shows, for Australia as a whole, the number of occupied dwellings of each class, at 30th June, 1933 and 1947, classified according to number of rooms. Similar details for Metropolitan, Urban Provincial, and Rural Areas may be found in Official Year Book No. 38 (*see* pages 562 and 563).

OCCUPIED PRIVATE DWELLINGS CLASSIFIED ACCORDING TO NUMBER OF ROOMS: AUSTRALIA, 1933 AND 1947.

(EXCLUDING DWELLINGS OCCUPIED SOLELY BY FULL-BLOOD ABORIGINALS.)

Number of Rooms per Dwelling.(*a*)	Number of Occupied Private Dwellings.									
	Census, 30th June, 1933.			Census, 30th June, 1947.						Increase, 1933–47.
	Private House.	Tenement and Flat.	Total Private Dwellings.	Private House (One Family).	Private House (Shared by Two or More Families). (*b*)	Share of Private House. (*c*)	Flat (including Share of Flat).	Tenement.	Total Private Dwellings.	
1	57,522	6,773	64,295	30,453	56	13,305	1,173	12,379	57,366	− 6,929
2	42,731	14,856	57,587	32,146	303	25,427	7,076	14,745	79,697	22,110
3	74,935	16,642	91,577	75,544	1,174	26,944	24,838	6,723	135,223	43,646
4	306,696	16,702	323,398	344,929	4,965	20,778	43,430	2,495	416,597	93,199
5	423,143	9,004	432,147	532,555	9,949	11,493	23,689	631	578,317	146,170
6	303,820	3,451	307,271	374,616	9,170	4,982	8,016	252	397,036	89,765
7	122,184	1,022	123,206	118,862	4,018	1,539	1,817	40	126,276	3,070
8	49,175	373	49,548	41,351	1,816	457	567	9	44,200	− 5,348
9	19,860	151	20,011	14,510	625	152	173	1	15,461	− 4,550
10 and over	21,744	97	21,841	13,916	548	88	100	..	14,652	− 7,189
Not Stated ..	12,709	6,081	18,790	6,371	175	846	520	886	8,798	− 9,992
Total Private Dwellings ..	1,434,519	75,152	1,509,671	1,585,253	32,799	106,011	111,399	38,161	1,873,623	363,952
Average number of rooms per Private Dwelling(*a*)										
Urban—										
Metropolitan	5.39	3.45	5.23	5.27	5.66	3.15	4.07	2.02	4.89	− 0.34
Provincial ..	5.13	2.90	5.06	5.11	5.50	3.15	3.99	2.30	4.92	− 0.14
Rural ..	4.67	2.70	4.65	4.89	5.58	3.23	3.95	2.66	4.85	0.20
Total ..	5.07	3.35	4.99	5.11	5.61	3.16	4.06	2.07	4.88	− 0.11

(*a*) Includes kitchen and enclosed sleep-out or portion of a verandah that has been permanently enclosed but does not include bathroom, pantry, store or outhouse, unless generally used for sleeping. (*b*) Private house shared by two or more family units or household groups in respect of which only one Householder's Schedule was furnished. (*c*) Portions of shared private houses in respect of which portions separate Householder's Schedules were furnished.

NOTE.—Minus sign (−) denotes decrease.

(iii) *Number of Inmates.* A classification of occupied private dwellings according to the number of inmates is shown in the following table. The table gives details for Australia only, but similar information for Metropolitan, Urban Provincial, and Rural areas may be found on pages 564 and 565 of Official Year Book No. 38.

The most frequent number of inmates residing in private houses occupied by one family for Australia as a whole was four, followed very closely by three and then by two and five inmates in that order. The average number of inmates in such private houses was 3.87 compared with an average of 4.15 inmates for all private houses in 1933.

It was known that "House sharing" existed during the economic depression at the time of the 1933 Census, but information concerning its extent was not sought from householders on that occasion. In the circumstances, it may be more appropriate to compare the average number of inmates in private houses in 1933 with a figure obtained after combining dwellings consisting of private houses and shares and their inmates in 1947. If shares of private houses are converted to actual houses on the basis of the average number of family groups residing in private houses shared by two or more families, the estimated average number of inmates in all private houses in 1947 would rise to 3.97 persons.

Two inmates predominated in flats, but tenements with one inmate were slightly in excess of those with two inmates. The averages for Australia were flats, 2.84 persons and tenements, 2.18 persons.

OCCUPIED PRIVATE DWELLINGS CLASSIFIED ACCORDING TO NUMBER OF INMATES: AUSTRALIA, 1933 AND 1947.

(EXCLUDING DWELLINGS OCCUPIED SOLELY BY FULL-BLOOD ABORIGINALS.)

Number of Inmates per Dwelling.(a)	Number of Occupied Private Dwellings.									
	Census, 30th June, 1933.			Census, 30th June, 1947.						
	Private House.	Tenement and Flat.	Total Private Dwellings.	Private House (One Family).	Private House (Shared by Two or More Families). (b)	Share of Private House. (c)	Flat (including Share of Flat).	Tenement.	Total Private Dwellings.	Increase, 1933–47.
1.. ..	116,501	12,284	128,785	108,055	..	16,870	13,744	13,360	152,029	23,244
2.. ..	222,700	25,187	247,887	293,351	1,480	34,039	38,337	13,020	380,227	132,340
3.. ..	271,825	19,086	290,911	338,886	3,508	26,198	30,024	6,843	405,459	114,548
4.. ..	275,501	10,587	286,088	340,987	5,948	15,378	17,838	2,944	383,095	97,007
5.. ..	213,557	4,716	218,273	232,622	6,469	7,180	7,168	1,224	254,663	36,390
6.. ..	142,153	1,937	144,090	132,245	5,637	3,409	2,612	424	144,327	237
7.. ..	87,039	824	87,863	69,894	3,901	1,645	1,035	201	76,676	− 11,187
8.. ..	53,755	360	54,115	37,931	2,636	862	424	96	41,949	− 12,166
9.. ..	24,570	112	24,682	15,307	1,357	244	122	27	17,057	− 7,625
10 and over.	26,918	59	26,977	15,975	1,863	186	95	22	18,141	− 8,836
Total Private Dwellings..	1,434,519	75,152	1,509,671	1,585,253	32,799	106,011	111,399	38,161	1,873,623	363,952
Total Inmates(a)	5,956,922	207,787	6,164,709	6,138,332	185,289	303,996	316,115	83,028	7,026,760	862,051
Average number of Inmates per Private Dwelling(a)										
Urban—										
Metropolitan	4.16	2.74	4.04	3.91	5.59	2.80	2.80	2.12	3.69	− 0.35
Provincial .	4.18	2.87	4.13	3.90	5.74	2.99	3.06	2.48	3.82	− 0.31
Rural ..	4.13	2.96	4.13	3.81	5.78	3.07	3.10	2.74	3.81	− 0.32
Total ..	4.15	2.76	4.08	3.87	5.65	2.87	2.84	2.18	3.75	− 0.33

(a) Includes all persons sleeping out on verandahs or in sleep-outs. (b) Private house shared by two or more family units or household groups in respect of which only one Householder's Schedule was furnished. (c) Portions of shared private houses in respect of which portions separate Householder's Schedules were furnished.

NOTE.—Minus sign (—) denotes decrease.

(iv) *Nature of Occupancy.* At the 1947 Census, 50.8 per cent. of the private houses occupied by one family in Australia for which particulars were supplied were occupied by owners; 9.0 per cent. by purchasers by instalments; 37.3 per cent. by tenants; and 2.9 per cent. by others. The proportions for all private houses in 1933 were—owners, 42.8 per cent.; purchasers by instalments, 13.5 per cent.; tenants, 39.1 per cent.; and others 4.6 per cent.

In the metropolitan areas 56.0 per cent. of the occupants of private houses occupied by one family were owners or purchasers by instalments, as compared with 60.2 per cent. in the urban provincial areas, and 64.8 per cent. in the rural. In the latter areas, however, the ownership of the house is associated with the ownership of the land acquired as a means of livelihood.

Tenants occupied 88.9 per cent. of the flats and 96.2 per cent. of the tenements in Australia in 1947. Separate particulars for flats and tenements were not recorded in 1933, but taking flats and tenements together at that date 91.4 per cent. were occupied by tenants.

In the following table Occupied Private Dwellings at 30th June, 1933 and 1947 have been classified for Australia as a whole, according to nature of occupancy. Similar information for Metropolitan, Urban Provincial, and Rural Areas was published in Official Year Book No. 38 (*see* pp. 566 and 567).

OCCUPIED PRIVATE DWELLINGS CLASSIFIED ACCORDING TO NATURE OF OCCUPANCY: AUSTRALIA, 1933 AND 1947.

(EXCLUDING DWELLINGS OCCUPIED SOLELY BY FULL-BLOOD ABORIGINALS.)

Nature of Occupancy.	Number of Occupied Private Dwellings.									Increase, 1933–47.
	Census, 30th June, 1933.			Census, 30th June, 1947.						
	Private House.	Tenement and Flat.	Total Private Dwellings.	Private House (One Family).	Private House (Shared by Two or More Families). (*a*)	Share of Private House. (*b*)	Flat (including Share of Flat).	Tenement.	Total Private Dwellings.	
Owner	600,148	4,265	604,413	792,637	12,765	21,133	10,680	810	838,025	233,612
Purchaser by Instalments	189,035	592	189,627	141,204	2,390	3,472	503	108	147,677	− 41,950
Tenant	549,275	66,137	615,412	581,845	16,728	79,025	98,708	36,444	812,750	197,338
Caretaker	39,815	948	40,763	25,145	418	721	776	286	27,346	− 13,417
Other Methods of Occupancy ..	24,669	453	25,122	20,350	221	371	360	219	21,521	− 3,601
Not Stated ..	31,577	2,757	34,334	24,072	277	1,289	372	294	26,304	− 8,030
Total Private Dwellings ..	1,434,519	75,152	1,509,671	1,585,253	32,799	106,011	111,399	38,161	1,873,623	363,952

(*a*) Private house shared by two or more family units or household groups in respect of which only one Householder's Schedule was furnished. (*b*) Portions of shared private houses in respect of which portions separate Householder's Schedules were furnished.

NOTE.—Minus sign (−) denotes decrease.

(v) *Rent per Week.* (*a*) *All Tenanted Private Dwellings.* Information tabulated concerning rents was restricted to the actual rent paid per week by tenants occupying unfurnished private dwellings. For 6.4 per cent. of private houses occupied by one family at 30th June, 1947, the rent was less than 10s. per week; for 29.9 per cent., between 10s. and £1 per week; for 40.3 per cent., between £1 and £1 10s. per week; for 17.9 per cent., between £1 10s. and £2 per week; and for 5.5 per cent., £2 per week and over. Ninety per cent. of the houses with rents of less than 10s. per week were located outside the metropolitan areas.

Throughout Australia the average rent for unfurnished private houses occupied by one family was 22s. 7d. per week. In the metropolitan areas the average was 25s. 8d. per week, in the urban provincial areas 21s. 5d., and in the rural areas 15s. 5d.

The average rent for unfurnished flats in the metropolitan areas was 37s. 9d. per week, or 47 per cent. more than that paid for private houses (one family) in the same areas, notwithstanding that private houses (one family) in the metropolitan areas contain nearly 30 per cent. more rooms than flats. In the urban provincial and rural areas, the rent of flats was approximately 30 per cent. and 51 per cent., respectively, higher than for private houses (one family). Nearly 86 per cent. of the tenanted flats were located in the metropolitan areas, 10.8 per cent. in the urban provincial areas, and only 3.2 per cent. in the rural areas. For 5.3 per cent. of all tenanted flats in Australia the rent was less than £1 per week; for 23.5 per cent. between £1 and £1 10s. per week; for 37.0 per cent. between £1 10s. and £2 per week; and for 34.2 per cent. £2 per week and over.

During the latest intercensal period the average rent per week for unfurnished private houses rose by 33 per cent. or from an average of 17s. per week for all private houses in 1933 to an average of 22s. 7d. per week for private houses occupied by one family in 1947. Similar comparisons for flats and tenements are not possible as data were not tabulated separately for these dwellings in 1933. The average rent for all private dwellings including private houses, shares of private houses, flats and tenements rose by 38 per cent. from 1933 to 1947.

The following table shows tenanted private dwellings classified, for Australia as a whole, according to weekly rent. Similar information for Metropolitan, Urban Provincial and Rural areas may be found in Official Year Book No. 38, pages 568 and 569.

TENANTED PRIVATE DWELLINGS CLASSIFIED ACCORDING TO WEEKLY RENT (UNFURNISHED): AUSTRALIA, 1933 AND 1947.

(EXCLUDING DWELLINGS OCCUPIED SOLELY BY FULL-BLOOD ABORIGINALS.)

Weekly Rent (Unfurnished).	Number of Occupied Private Dwellings.										
	Census, 30th June, 1933.			Census, 30th June, 1947.							
	Private House.	Tenement and Flat.	Total Private Dwellings.	Private House (One Family).	Private House (Shared by Two or More Families.) (a)	Share of Private House. (b)	Flat (including Share of Flat).	Tenement.	Total Private Dwellings.	Increase, 1933–47.
der 5s.	17,853	1,516	19,369	6,796	40	299	25	87	7,247	−12,122
5s. and under 10s.	57,621	8,660	66,281	25,324	284	2,629	198	588	29,023	−37,258
0s. ,, ,, 15s.	124,106	11,702	135,808	66,235	1,156	7,497	1,074	1,286	77,248	−58,560
5s. ,, ,, 20s.	118,973	8,614	127,587	82,928	1,947	7,246	2,719	1,947	96,787	−30,800
0s. ,, ,, 25s.	91.730	8,709	100.439	109,084	3,132	10,123	7,421	2,295	132,055	31,616
5s. ,, ,, 30s.	41,737	7,210	48,947	91,924	3,003	8,057	10,152	1,627	114,763	65,816
0s. ,, ,, 35s.	19,895	5,386	25,281	62,393	2,237	6,010	14.483	1,026	86,149	60,868
5s. ,, ,, 40s.	6,522	2,644	9,166	26,937	1,033	2,471	13,229	473	44,143	34,977
0s. ,, ,, 50s.	5,769	2,898	8,667	18,025	977	1,816	14,972	357	36,147	27,480
0s. ,, ,, 60s.	1,676	1,116	2,792	5,252	321	500	5,698	125	11,896	9,104
0s. ,, ,, 70s.	901	665	1,566	2,051	121	162	2,278	49	4,661	3,095
0s. ,, ,, 80s.	293	315	608	744	42	51	1,059	21	1,917	1,309
0s. ,, ,, 90s.	201	251	452	479	17	11	631	6	1,144	692
0s. ,, ,, 100s.	71	124	195	212	4	9	273	1	499	304
0s. and over ..	203	290	493	456	10	10	679	..	1,155	662
t Stated ..	61,724	6,037	67,761	83,005	2,404	32,134	23,817	26,556	167,916	100,155
Total Private Dwellings	549,275	66,137	615,412	581,845	16,728	79,025	98,708	36,444	812,750	197,338
eekly Rent (Unfurnished) per Private Dwelling	17s. 0d.	21s. 9d.	17s. 6d.	22s. 7d.	25s. 9d.	22s. 0d.	36s. 7d.	22s. 1d.	24s. 2d.	6s. 8d.

(a) Private house shared by two or more family units or household groups in respect of which only one Householder's hedule was furnished. (b) Portions of shared private houses in respect of which portions separate Householders' Schedules were furnished.

NOTE.—Minus sign (−) denotes decrease.

(b) *Private Houses of Three to Six Rooms.* Special tabulations of rents were undertaken for tenanted private houses of three to six rooms with walls of wood or of brick or stone. The particulars for this group of private dwellings, which represented about 80 per cent. of all tenanted private houses in Australia, provide a very convenient summary of average rents ruling at the time of the Census.

Rents were summarized for 468,536 tenanted private houses (occupied by one family) in this group. Forty-nine per cent. had walls of brick or stone and 51 per cent. of wood, compared with proportions of 46 and 54 per cent. respectively for all rented private houses in a similar tabulation in 1933. During the intercensal period there was little variation in the numbers of rented houses of three, four and six rooms, but the number of rented houses of five rooms increased by nearly 13 per cent. Brick dwellings were largely responsible for this increase.

The average rent of 25s. per week for all private houses, three to six rooms, of wood, brick or stone in the metropolitan areas at the 1947 Census was 6s. 7d., or 35.7 per cent., higher than the corresponding average in 1933. In the urban provincial sections the average rent was 21s. 3d. per week, or 36.4 per cent. higher than in 1933, while in the rural areas the average rent of 15s. 7d. was 35.5 per cent. higher than that at the 1933 Census.

An interesting comparison regarding the rent of private houses is that based on the average weekly rent per room. At the 1947 Census the average rent per room for wooden houses of three to six rooms in the metropolitan areas of Australia was 4s. 9d. per week, an increase of 1s. 4d. or 39 per cent. over the average of 3s. 5d. per week at the 1933 Census. Similarly, the average of 5s. 6d. per room for brick or stone houses in the metropolitan areas showed a corresponding increase of 1s. 5d. or 35 per cent.

In the urban provincial sections the average rent of 4s. 3d. per room for wooden houses was 1s. 2d., or 38 per cent., higher than the 1933 Census figure of 3s. 1d. per week, while the rent of 4s. 9d. per week for brick or stone houses was 36 per cent. higher than the previous figure of 3s. 6d. per week. The average rent per room in the rural areas also showed increases—from 2s. 6d. to 3s. 3d. per week (30 per cent.) for wooden houses, and from 2s. 7d. to 3s. 8d. per week (42 per cent.) for those of brick or stone. With the exception of brick houses in the metropolitan and rural areas, the average rent per room for houses of three rooms was generally higher than for houses of four, five or six rooms. The increase since the 1933 Census in the rent per room was somewhat similar for all houses of three to six rooms but was generally lower in the urban provincial and rural areas than in the metropolitan areas.

AVERAGE WEEKLY RENT (UNFURNISHED) (*a*) OF TENANTED PRIVATE HOUSES (ONE FAMILY), THREE TO SIX ROOMS, WITH WALLS OF WOOD, BRICK OR STONE: AUSTRALIA, 1933 AND 1947.

(EXCLUDING DWELLINGS OCCUPIED SOLELY BY FULL-BLOOD ABORIGINALS.)

Particulars.	Average Weekly Rent (unfurnished).								
	Census, 30th June, 1933.				Census, 30th June, 1947.				Increase, 1933–47.
	Urban.		Rural.	Total, Australia.	Urban.		Rural.	Total, Australia.	
	Metropolitan.	Provincial.			Metropolitan.	Provincial.			
Private Houses (One Family) with Walls of—	*s. d.*	*s. d.*	*s. d.*	*s. d.*	*s. d.*	*s. d.*	*s. d.*	*s. d.*	*s. d.*
Wood—									
3 rooms	11 1	10 6	8 0	9 9	15 4	15 2	11 5	13 9	4 0
4 "	14 3	13 2	10 3	12 7	19 11	18 4	13 9	17 4	4 9
5 "	17 3	15 7	12 5	15 5	23 9	21 1	16 1	20 8	5 3
6 "	19 10	17 6	13 7	17 6	26 3	23 1	17 6	22 10	5 4
3 to 6 rooms ..	16 5	15 0	11 4	14 5	22 7	20 5	15 2	19 7	5 2
Brick or Stone—									
3 rooms	12 1	11 2	7 6	11 8	16 8	16 10	13 2	16 6	4 10
4 "	16 9	14 5	10 3	16 1	23 1	20 0	14 9	22 4	6 3
5 "	20 5	17 8	13 4	19 8	27 5	23 7	18 5	26 5	6 9
6 "	24 3	20 4	15 3	23 3	31 9	27 0	20 10	30 4	7 1
3 to 6 rooms ..	19 8	17 2	12 5	18 11	26 3	23 3	17 8	25 5	6 6
Wood, Brick or Stone—									
3 rooms	11 8	10 8	7 11	10 8	16 3	15 8	11 8	15 2	4 6
4 "	15 9	13 6	10 3	14 2	22 1	18 9	13 10	19 10	5 8
5 "	19 3	16 1	12 6	17 5	26 3	21 10	16 6	23 7	6 2
6 "	22 9	18 4	13 11	20 6	29 11	24 5	18 3	26 10	6 4
3 to 6 rooms ..	18 5	15 7	11 6	16 7	25 0	21 3	15 7	22 6	5 11

(*a*) Rents relate to all tenanted private houses in 1933 and to tenanted private houses (one family) in 1947.

(vi) *Facilities.* At the 1947 Census, householders were asked for the first time to state whether their dwellings were supplied with electricity, gas and running water, and whether thay had such facilities as a bathroom, flush toilet, laundry and cooking facilities. In addition they were asked to indicate the means of cooking mostly used. Statistics of these facilities are given on page 571 of Official Year Book No. 38.

§ 9. Oversea Migration.

1. **Oversea Migration during Present Century.**—Earlier issues of the Official Year Book contain in summary form tables showing the increase of population by net migration from 1861 to the latest date, while the *Demography Bulletins* issued by this Bureau give this information for individual years. The following table shows for Australia arrivals and departures and net migration since 1901 :—

OVERSEA MIGRATION : AUSTRALIA.

Period.	Arrivals.			Departures.			Net Migration.		
	Males.	Females.	Persons.	Males.	Females.	Persons.	Males.	Females.	Persons.
1901–05..	196,993	84,167	281,160	204,170	93,783	297,953	— 7,177	— 9,616	— 16,793
1906–10..	251,482	119,552	371,034	213,483	100,273	313,756	37,999	19,279	57,278
1911–15(*a*)	422,927	209,893	632,820	382,552	113,406	495,958	40,375	96,487	136,862
1916–20(*a*)	438,721	100,764	539,485	390,202	78,574	468,776	48,519	22,190	70,709
1921–25..	289,695	188,357	478,052	172,236	122,550	294,786	117,459	65,807	183,266
1926–30..	266,593	203,887	470,480	193,336	147,437	340,773	73,257	56,450	129,707
1931–35..	124,207	115,116	239,323	134,883	115,326	250,209	—10,676	— 210	— 10,886
1936–40(*b*)	161,774	159,538	321,312	140,901	137,283	278,184	20,873	22,255	43,128
1941–45(*b*)	35,422	28,503	63,925	30,097	26,019	56,116	5,325	2,484	7,809
1946–50(*b*)	398,507	303,413	701,920	180,779	168,057	348,836	217,728	135,356	353,084
1941(*b*) ..	11,861	10,800	22,661	10,063	7,414	17,477	1,798	3,386	5,184
1942(*b*) ..	6,295	5,971	12,266	3,059	3,041	6,100	3,236	2,930	6,166
1943(*b*) ..	3,931	2,194	6,125	2,822	2,032	4,854	1,109	162	1,271
1944(*b*) ..	4,454	3,043	7,497	5,389	4,291	9,680	— 935	— 1,248	— 2,183
1945(*b*) ..	8,881	6,495	15,376	8,764	9,241	18,005	117	— 2,746	— 2,629
1946(*b*) ..	17,782	17,108	34,890	23,081	26,957	50,038	— 5,299	— 9,849	— 15,148
1947(*b*) ..	39,865	27,903	67,768	31,289	25,868	57,157	8,576	2,035	10,611
1948(*a*) ..	66,321	49,402	115,723	33,797	26,811	60,608	32,524	22,591	55,115
1949(*a*) ..	132,648	100,487	233,135	42,705	40,429	83,134	89,943	60,058	150,001
1950(*a*) ..	141,891	108,513	250,404	49,907	47,992	97,899	91,984	60,521	152,505

(*a*) Includes movements of defence personnel. (*b*) Excludes movements of defence personnel from September, 1939 to June, 1947.

NOTE.—Minus sign (—) indicates excess of departures over arrivals.

As the encouragement of immigration by Governmental assistance has been a feature of Australian immigration policy, a clear indication of the significance of migration movements is obtained when "assisted" and "unassisted" movements are distinguished. This has been done, broadly, in the following table.

"ASSISTED" AND "UNASSISTED" MIGRATION : AUSTRALIA.

Period.	Arrivals.			Departures.	Excess of "Unassisted" Arrivals over All Departures.
	Nominated and Selected ("Assisted").	Other ("Unassisted").	Total.		
1901–05..	3,867	277,293	281,160	297,953	— 20,660
1906–10..	39,744	331,290	371,034	313,756	17,534
1911–15..	150,554	(*a*)482,266	(*a*)632,820	(*a*)495,958	— 13,692
1916–20..	11,631	(*a*)527,854	(*a*)539,485	(*a*)468,776	59,078
1921–25..	115,448	362,604	478,052	294,786	67,818
1926–30..	99,403	371,077	470,480	340,773	30,304
1931–35..	781	238,542	239,323	250,209	— 11,667
1936–40(*b*)	3,828	317,484	321,312	278,184	39,300
1941–45(*b*)	..	63,925	63,925	56,116	7,809
1946–50(*b*)	273,195	428,725	701,920	348,836	79,889
1946(*b*)	..	34,890	34,890	50,038	— 15,148
1947(*b*)	6,303	61,465	67,768	57,157	4,308
1948	28,943	(*a*) 86,780	(*a*)115,723	(*a*)60,608	26,172
1949	118,840	(*a*)114,295	(*a*)233,135	(*a*)83,134	31,161
1950	119,109	(*a*)131,295	(*a*)250,404	(*a*)97,899	33,396

(*a*) Includes movements of defence personnel. (*b*) Excludes movements of defence personnel from September, 1939 to June, 1947.

NOTE.—Minus sign (—) indicates excess of departures.

It is not possible in the statistics of departures to distinguish the return movement of persons who came to Australia as "assisted" migrants and consequently the separate net migration of "assisted" and "non-assisted" persons cannot be ascertained. Nevertheless the basis on which the above table has been compiled is sufficient to throw into relief the major trends in Australian migration statistics.

During the 1914–18 War, 331,781 members of the Australian Imperial Forces embarked for service overseas and have been included in the departures. The arrivals likewise include the surviving members who returned, so that the net migration of the years affected by such movements understates the true position by the equivalent of war losses (approximately 60,000 all told). During the 1939–45 War and up to 30th June, 1947, Australian defence personnel overseas were included as Australian population irrespective of their whereabouts, and their movements have not been recorded in the migration statistics.

In the half century 1901–1950 a gross number of 698,451 persons entered Australia in four distinct phases of its encouraged migration programme. The number of these who returned overseas is not known precisely but indications are that it would be relatively small. In the same period the excess of non-assisted arrivals over all departures was only 255,713. Thus it may be seen that during the half century the net number of "assisted" migrants was more than double the number of "unassisted", even after making allowance for war losses and those assisted migrants who did not, in the end, remain in Australia.

As the depression years with which the century opened gave way to a period of more stable economic conditions assisted migration was resumed about 1906. Immigration gained impetus during the years 1910 to 1912, but this movement was interrupted by war in 1914. After the war the resumption of assisted migration was accompanied by a flow of unassisted migrants greater than for many decades, but this movement was interrupted by depression and when encouraged migration was resumed in 1939 it was almost immediately stopped by the outbreak of war in September. In the immediate post-war years encouraged migration was again resumed and although the numbers brought to Australia by such means were far greater than for any other comparable period they were not accompanied by a correspondingly high number of "unassisted" migrants.

A detailed review of assisted migration into Australia in recent years is given in § 10.

2. Classes of Arrivals and Departures.—(i) *General.* Since 1st July, 1924, all oversea travellers have been classified according to their declared intention in regard to residence made at the time of arrival or departure. For various reasons the intentions of travellers are subject to subsequent modification and the classification headings used must therefore be accepted as indicating intention only. The numbers so classified since 1st January, 1926 are as follows.

MIGRANTS CLASSIFIED ACCORDING TO INTENDED RESIDENCE : AUSTRALIA.

ARRIVALS.

Period.	Permanent New Arrivals.	Australian Residents Returning from Abroad.	Temporary Visitors.	Total.
1926–30	224,010	121,395	125,029	(a) 470,480
1931–35	54,444	84,554	100,325	239,323
1936–40	(b) 88,712	104,870	127,730	321,312
1941–45	(b) 32,624	11,150	20,151	63,925
1946–50	457,988	108,736	135,196	701,920
1946	18,217	6,330	10,343	34,890
1947	31,765	18,305	17,698	67,768
1948	65,739	23,813	26,171	115,723
1949	167,727	28,116	37,292	233,135
1950	174,540	32,172	43,692	250,404

DEPARTURES.

Period.	Australian Residents Departing Permanently.	Australian Residents Departing Temporarily.	Temporary Visitors.	Total.
1926–30	103,209	111,714	125,772	(c) 340,773
1931–35	71,670	79,426	99,108	(d) 250,209
1936–40	51,006	94,650	132,528	278,184
1941–45	22,399	9,163	24,554	56,116
1946–50	105,968	101,787	141,081	348,836
1946	29,806	6,702	13,530	50,038
1947	19,579	18,764	18,814	57,157
1948	17,271	19,557	23,780	60,608
1949	18,457	25,351	39,326	83,134
1950	20,855	31,413	45,631	97,899

(a) Includes 46 arrivals whose period of intended residence was not stated. (b) Includes evacuees arriving in Australia during the war years as follows :—1936–40, 4,543 ; 1941–45, 12,586. (c) Includes 78 departures whose length of stay abroad was not stated. (d) Includes 5 departures whose length of stay abroad was not stated.

(ii) *Permanent Movement.* In the table above "permanent" residence means residence for a year or longer, in Australia in the case of arrivals or overseas in the case of departures.

Although permanent new arrivals increased during each of the eight years prior to 1939 the number in the latter year was considerably below the annual average for the quinquennium 1926–1930. The war caused a large drop from 1940, but after the war the number rose progressively, reaching 174,540 in 1950, the highest on record.

Permanent departures were far more numerous in the years 1928 to 1931 than in earlier years but they declined during each of the six years ended 1937, the number in the latter year being the lowest recorded until the outbreak of war in 1939. As in the case of arrivals, although not to the same extent, the number of Australian residents departing permanently rose rapidly after the war.

Up to and including 1929 there was a considerable net gain of permanent residents, but during 1930 and 1931 there was a heavy net loss. The loss was very much reduced in 1932, 1933 and 1934, whilst during the five years up to and including 1939 there was a net gain in permanent residents of more than 28,000. Except for the arrival of evacuees, little movement took place during the war period, but in 1946 a net permanent loss of 11,589 persons occurred, owing in large measure to the departure for the United States of

America of Australian wives and children of American servicemen, and, when conditions permitted after the war, the departure of Australians to Papua and New Guinea and of large numbers of war evacuees who were returned to their home countries. Subsequently large net gains were recorded, amounting to 48,468 in 1948, 149,270 in 1949 and 153,685 in 1950.

(iii) *Temporary Movement.* Temporary movement refers to persons intending residence for periods shorter than one year and includes Australian residents and visitors from overseas. Since 1st July, 1947, it also includes Australian defence personnel and their dependents irrespective of length of intended residence. Although considerable in number, the temporary movement is of little significance from the point of view of population growth, as it represents principally the movement of business people and tourists.

3. **Extent of Journey.**—(i) *General.* Since 1st January, 1945, the journeys undertaken by passengers have been recorded for Australian oversea migration statistics in two ways: (*a*) according to country or State of embarkation or disembarkation and (*b*) according to country or State of last or future permanent residence. In the case of a complete journey in a single stage to or from Australia there is no difference in result between the two methods. With multiple-stage journeys, however, one method distinguishes only the first stage of outward journeys or the last stage of inward journeys, whilst the second method records the complete journey.

Detailed statistics of journeys are published in the annual *Demography Bulletins* (*see* Bulletins No. 67, 1949 and No. 68, 1950). The following brief explanations indicate the principles followed in the compilation of these statistics.

(ii) *Arrivals.* (*a*) *Country of Embarkation*—refers to the country in which the passenger embarked on the particular ship or aircraft which brought the passenger to Australia. Therefore in multiple-stage journeys to Australia these statistics refer only to the last booked stage.

(*b*) *State of Disembarkation*—refers to the State in which the passenger actually disembarked, irrespective of the State to which originally booked or of State of ultimate destination. Passengers embarking on fresh journeys from one Australian port to another are recorded as interstate migration.

(*c*) *Country of Last Permanent Residence*—This is taken from the passengers' own statement and is not necessarily the country from which the single-stage or multiple-stage journey to Australia commenced. Permanent residence means residence for one year or longer.

(*d*) *State of Intended Future Permanent Residence*—In the administration of the encouraged migration schemes large numbers of migrants are disembarked in States other than the State for which they are destined, and their subsequent movements in Australia to State of ultimate destination are recorded as interstate migration in which distinction between individuals is not practicable. The classification by State of intended future permanent residence was introduced to permit compilation of statistics which show the true effect of oversea arrivals on the populations of individual States.

(iii) *Departures.* (*a*) *State of Embarkation*—refers to the State in which the passenger actually embarked on the ship or aircraft to leave Australia. The interstate travel of any such passengers prior to embarking is recorded as interstate migration.

(*b*) *Country of Disembarkation*—refers to the intended country of disembarkation from the particular ship or aircraft which takes the passenger from Australia. In multiple-stage journeys from Australia these statistics refer only to the first booked stage and changes in this, subsequent to departure, are not recorded.

(*c*) *Country of Intended Future Permanent Residence*—refers to the ultimate destination, after a complete single-stage or multiple-stage journey, of the passenger, as intended at the time of embarkation.

(*d*) *State of Last Permanent Residence*—refers to the State in which the passenger was last resident for a period of 12 months or longer, irrespective of the State in which actual embarkation on an oversea ship or aircraft took place. In the case of temporary visitors leaving Australia who have not resided for at least twelve months in any one State, the State of embarkation is regarded as the State of last permanent residence.

4. **Racial Origin.**—Statistics of racial origin of migrants are based on the passengers' own statement as to race, which in some cases may express the country of birth or nationality rather than actual race.

Up to 30th June, 1948, the system of classifying racial origin was a compromise based partly on nationality and partly on racial origin. This has been superseded from 1st July, 1948 by statistics of racial origin compiled, irrespective of nationality, for the four broad racial groups shown in the following table. Statistics of nationality have been compiled independently and are referred to in the next paragraph.

RACIAL ORIGIN OF ARRIVALS AND DEPARTURES: AUSTRALIA.

Racial Origin.	Arrivals.			Departures.			Net Migration.		
	July–Dec., 1948.	1949.	1950.	July–Dec., 1948.	1949.	1950.	July–Dec., 1948.	1949.	1950.
European ..	61,471	230,297	247,321	25,697	80,836	95,995	35,774	149,461	151,326
Asian ..	1,462	2,712	2,922	1,008	2,276	1,735	506	436	1,187
African ..	9	20	12		12	20		8	– 8
Polynesian ..	43	106	149		10	149		96	..
Total ..	62,985	233,135	250,404	26,705	83,134	97,899	36,280	150,001	152,505

NOTE.—Minus sign (–) indicates excess of departures over arrivals.

5. **Nationality.**—Because the particulars of racial origin as stated by migrants closely reflect their nationalities no attempt was made prior to 1st July, 1948 to compile detailed statistics of nationality. Up to 31st December, 1944, a composite classification according to "Nationality or Race" was the only one made (*see* para. 4) apart from a special tabulation of nationality distinguishing only "British" and "Alien". From 1st July, 1948 a detailed classification of the nationalities of migrants as shown on their passports has been made, independent of racial origin. The principal nationalities recorded since that date are as follows:—

NATIONALITY OF ARRIVALS AND DEPARTURES: AUSTRALIA.

Nationality.	Arrivals.			Departures.			Net Migration.		
	July–Dec., 1948.	1949.	1950.	July–Dec., 1948.	1949.	1950.	July–Dec., 1948.	1949.	1950.
British ..	47,394	128,818	138,826	23,686	76,057	90,078	23,708	52,761	48,748
American (U.S.)	1,178	2,436	2,978	1,072	2,107	2,613	106	329	365
Austrian ..	91	688	391	30	67	49	61	621	342
Chinese ..	759	1,551	1,326	604	1,310	736	155	241	590
Czechoslovak ..	531	4,167	5,069	20	75	54	511	4,092	5,015
Dutch ..	519	2,208	12,352	228	1,020	1,260	291	1,188	11,092
Estonian ..	642	3,092	1,221	8	8	14	634	3,084	1,207
French ..	400	1,190	1,665	315	827	1,113	85	363	552
German ..	161	1,682	1,601	66	125	155	95	1,557	1,446
Greek ..	659	1,756	1,780	37	131	158	622	1,625	1,622
Hungarian ..	213	5,649	5,410	13	19	46	200	5,630	5,364
Italian ..	1,781	10,647	13,149	168	317	351	1,613	10,330	12,798
Latvian ..	1,474	10,597	5,419	3	3	32	1,471	10,594	5,387
Lithuanian ..	961	6,007	1,558	4	14	19	957	5,993	1,539
Polish(*a*) ..	2,997	28,805	31,976	85	119	103	2,912	28,686	31,873
Russian(*b*) ..	901	9,422	1,769	21	47	88	880	9,375	1,681
Ukrainian ..			5,220			9			5,211
Yugoslav ..	1,014	7,863	10,706	6	90	36	1,008	7,773	10,670
Stateless (so described) ..	(*d*)	2,354	3,464	(*d*)	29	96	(*d*)	2,325	3,368
Stateless (other)*c*	(*d*)	448	252	(*d*)	..	12	(*d*)	448	240
Other ..	1,310	3,755	4,272	339	769	877	971	2,986	3,395
Total ..	62,985	233,135	250,404	26,705	83,134	97,899	36,280	150,001	152,505

(*a*) Includes Stateless Pole. (*b*) Includes Stateless Russian. (*c*) Excludes Stateless Pole, Stateless Russian and Stateless (so described). (*d*) Included in "Other".

6. **Age Distribution.**—The annual *Demography Bulletins* show particulars of total arrivals and departures of oversea travellers classified according to intention as to residence (*see* para. 2 above) and dissected into five-yearly age-groups (*see Demography Bulletin* No. 68 for 1950 figures). A summary of the age distribution of permanent arrivals and departures during 1950 is as follows :—

AGE DISTRIBUTION OF PERMANENT ARRIVALS AND DEPARTURES : AUSTRALIA, 1950.

Age Group (Years).	Permanent New Arrivals.			Permanent Departures.		
	Males.	Females.	Persons.	Males.	Females.	Persons.
0–14	21,210	19,948	41,158	1,214	1,280	2,494
15–44	71,801	43,175	114,976	6,425	6,878	13,303
45–64	7,784	7,828	15,612	1,545	2,386	3,931
65 and over . .	1,154	1,640	2,794	431	696	1,127
Total . .	101,949	72,591	174,540	9,615	11,240	20,855

7. **Conjugal Condition.**—Particulars of the oversea arrivals and departures classified according to intention as to residence (*see* para. 2 above) are also dissected to show conjugal condition. Particulars of each classification by conjugal condition for 1950 are shown in *Demography Bulletin* No. 68. Details for the permanent movement during 1950 are as follows :—

CONJUGAL CONDITION OF PERMANENT ARRIVALS AND DEPARTURES : AUSTRALIA, 1950.

Conjugal Condition.	Permanent New Arrivals.			Permanent Departures.		
	Males.	Females.	Persons.	Males.	Females.	Persons.
Never Married . .	61,082	32,241	93,323	5,517	5,959	11,476
Married	39,494	35,879	75,373	3,788	3,993	7,781
Widowed	790	3,779	4,569	226	1,109	1,335
Divorced	583	692	1,275	84	179	263
Total . .	101,949	72,591	174,540	9,615	11,240	20,855

8. **Occupation.**—A classification of the occupations of males who arrived or departed permanently during 1950 is published in *Demography Bulletin* No. 68. Summarized into the main occupational groups the figures are as follows :—

OCCUPATIONS OF PERMANENT MALE ARRIVALS AND DEPARTURES : AUSTRALIA, 1950.

Occupational Group.	Permanent New Arrivals.	Permanent Departures.	Occupational Group.	Permanent New Arrivals.	Permanent Departures.
Rural, Fishing and Hunting	13,305	428	Indefinite or Not Stated	3,468	342
Professional and Semi-professional . .	3,238	1,207	Not Gainfully Occupied—		
Administrative . .	1,421	421	Children not attending school . .	13,449	815
Commercial and Clerical	6,929	1,582	Full-time Students	9,851	682
Domestic and Protective Service . .	3,278	552	Pensioners and others	860	386
Craftsmen	27,764	2,179			
Operatives	10,576	657			
Labourers	7,810	364	Total . .	101,949	9,615

§ 10. Immigration.

(A) Assisted Migration into Australia.

1. **Joint Commonwealth and States' Scheme.**—Details of the joint scheme of assisted immigration arrived at by agreement between the Commonwealth and State Governments which operated from 1920 to 1939 may be found in previous issues of the Official Year Book (*see* No. 38, page 576).

2. **Suspension of Assisted Passage Scheme during War.**—After the outbreak of hostilities in 1939 it was decided to discontinue the grant of assisted passages for the duration of the war.

3. **United Kingdom Free and Assisted Passage Agreement, March, 1946.**—(i) *General.* Resumption of assisted migration was the subject of negotiations between the Commonwealth and United Kingdom Governments towards the end of 1945, and an agreement was signed in March, 1946 between the Commonwealth and British Governments for free and assisted passages for British residents desirous of migrating to Australia. As from the opening date, 31st March, 1947, the Commonwealth Government undertook to accept eligible persons provided they are medically fit and otherwise regarded as suitable for settlement. Information concerning conditions and opportunities for employment is provided by the Australian High Commissioner for the guidance of all prospective settlers. Expenses incurred in the selection of applicants are borne by the Commonwealth Government, which has also undertaken to provide free transportation from the port of disembarkation to the ultimate destination in Australia and temporary accommodation for a limited period wherever necessary. Since the opening of the schemes administrative arrangements have been in force with the State Governments in regard to the handling of personal and group nominations lodged by friends and relatives, or employers, for migrants and their reception, placement and after-care upon arrival.

To maintain the intake of British migrants the Commonwealth itself in 1950 implemented a supplementary nomination scheme, under which large numbers of settlers (including families) are introduced and accommodated in Commonwealth hostels throughout Australia whilst they remain in the type of essential employment for which they are selected.

Substantial rights, including health, medical services, sickness and unemployment benefits, maternity allowances and child endowment under the Australian Social Security Services Scheme are extended to settlers as from the date of arrival; but it has not been possible to extend employment preference to British ex-servicemen and women. Prospective settlers will not, however, be granted passages unless there is a reasonable assurance that they will obtain employment on arrival.

Any adult resident of Australia may nominate for free or assisted passages friends or relatives resident in the United Kingdom who are eligible for consideration.

(ii) *Free Passages.* This part of the scheme is financed by the United Kingdom Government as part of its re-settlement programme. Persons eligible for consideration are British ex-servicemen and women, together with their dependants, if they were resident in the British Isles on 1st September, 1938, or were in the United Kingdom Forces overseas on that date and subsequently served in a full-time capacity in the Armed Forces or Merchant Navy of the United Kingdom during any period after 25th May, 1939.

Applications for passages under this scheme were required to be lodged within certain time limits and the final closing date was the 31st December, 1950. However, applications accepted prior to that date remain valid and the persons concerned, if otherwise eligible, are still entitled to receive free passages.

(iii) *Assisted Passages.* Assisted passages are granted under the Empire Settlement Acts of the United Kingdom to suitable British subjects normally resident in the United Kingdom who do not come within the scope of (ii) above. However, the Commonwealth is not normally prepared to accept single persons or married persons without children if they have reached their forty-sixth birthday before the date of sailing. However, if otherwise acceptable under the scheme, the parents or close relatives of intending migrants or of persons established in Australia may be granted passages irrespective of age.

Each settler, male or female, of 19 years of age and over is required to contribute £10 (English currency) towards the cost of a passage, and each juvenile of 14 years, but not more than 18 years, £5 (English currency). Children under 14 years of age travel free. The costs of passages, after the migrants' contributions have been taken into account, are borne by the United Kingdom and Commonwealth Governments.

(iv) *Numbers Arrived.* The following numbers arrived under the scheme :—1947, 4,747; 1948, 15,910; 1949, 37,845; and 1950, 37,712.

4. **Number of Persons Assisted.**—The number of British assisted migrants for the years 1933 to 1950 inclusive, and the total from the earliest years up to the end of 1950 are given in the following table :—

IMMIGRATION : NUMBER OF PERSONS OF BRITISH ORIGIN ASSISTED.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	A.C.T.	Australia.
1933	11	3	1	1	56	..	..	72
1934	11	4	1	..	143	..	..	159
1935	1	..	1	..	98	..	..	100
1936	4	2	1	..	2	..	..	9
1937	60	33	6	3	39	..	..	141
1938	410	179	19	43	161	38	2	852
1939	1,309	544	376	126	304	24	3	2,686
1940	92	20	16	4	5	3	..	140
1947(*a*) ..	695	619	593	574	1,282	339	645	4,747
1948	5,146	4,787	1,982	1,707	1,577	789	255	16,243
1949	13,484	10,407	4,895	3,130	4,739	1,306	525	38,486
1950	12,944	11,137	5,505	3,027	3,480	1,397	839	38,329
Total from earliest years to end of 1950.. ..	379,974	283,040	249,388	124,432	98,093	28,853	2,336	1,166,116

(*a*) Assisted migration was suspended during the years 1941 to 1946. *See* following paragraphs.

5. **Child Migration.**—(i) *General.* Since the commencement of the Assisted Passage Migration Schemes in 1947, the immigration of unaccompanied children and youths from the United Kingdom has been encouraged under the auspices of approved voluntary organizations. Those organizations at present introducing child migrants include Fairbridge Farm Schools of New South Wales and Western Australia, Dr. Barnardo's Homes, Big Brother Movement of New South Wales and Tasmania, Northcote Children's Emigration Fund. All principal religious denominations are also participating in the schemes. At present a total of over 40 institutions are caring for child migrants.

(ii) *Financial Assistance.* Maintenance allowances are payable on the following basis to approved organizations caring for child migrants: the United Kingdom Government contributes 12s. 6d., and the Commonwealth Government 10s. per week in respect of each child under 16 years of age; a minimum of 3s. 6d. per week for each child up to the age of 14 years is contributed by the State Governments. In addition, the State and Commonwealth Governments have each agreed to contribute one third of capital expenditure approved as necessary to provide accommodation for child migrants to be introduced by an approved organization.

(iii) *Numbers Introduced.* From the beginning of 1947 to the end of 1951, a total of 1,571 British children and youths arrived in Australia under the sponsorship of voluntary organizations; of these 723 arrived in New South Wales, 557 in Western Australia, 180 in Victoria and 111 in other States.

6. **Assisted Passage Scheme, Eire.**—In November, 1948, the Commonwealth Government approved a scheme for the granting of limited financial assistance to natural born citizens of Eire normally residing in the British Isles, or natural born British citizens residing in Eire, who wish to emigrate to Australia and who are selected as suitable for settlement here. This scheme, however, only applies to prospective new settlers and their dependants who are not eligible for free or assisted passages under the schemes agreed to with the United Kingdom Government (*see* para. 3 above).

The maximum amount of assistance granted toward an adult passage is £30 sterling, with varying amounts for children according to age.

It is not essential for an applicant to have been nominated by a friend or relative in Australia before being considered for financial assistance under the scheme. Single men or women may be accepted, but owing to the acute difficulty of finding accommodation for family units, families are, at present, only being accepted if they have nominators in Australia able to accommodate them or if they can make arrangements regarding accommodation before arrival.

Under this scheme 109 persons arrived in 1949 and 457 in 1950.

7. **Maltese Migration.**—On 31st May, 1948, the Commonwealth Government entered into an agreement with the Government of Malta under which assistance to travel to Australia is jointly given by the two Governments to selected settlers from Malta. The maximum contribution by the Commonwealth is £30 sterling in the case of an adult's passage money, and is subject to the Government of Malta contributing not less than a like amount.

Persons already established in Australia may nominate individual Maltese under this scheme and nominations for groups of migrants may be submitted by prospective employers or by organizations. In either case, the nominator undertakes to provide accommodation and, in the case of group nominations, employment.

The Commonwealth retains the right of final selection of all migrants under the scheme, including group and personal nominees. The Government of Malta has undertaken to attend to after-care of Maltese migrants arriving under this scheme.

Maltese settlers who arrived under this scheme during the years 1948, 1949 and 1950 totalled 7,013.

Forty-eight unaccompanied Maltese children in total were introduced to approved institutions in Western Australia during 1950.

8. **Empire and Allied Ex-Servicemen's Scheme.**—With the principal object of giving servicemen of Empire and Allied countries who had served in Australia during the recent war an opportunity to return here for permanent settlement, the Australian Government on 26th May, 1947 initiated a scheme of financial assistance toward the cost of the passages to Australia of eligible Empire ex-servicemen not covered by the United Kingdom–Australia Free and Assisted Passage Agreement, and ex-Servicemen of the United States of America and their immediate dependants. The maximum amount of assistance granted toward an adult passage is £30 sterling with varying amounts for children according to age.

The scheme was later extended to provide similar assistance to ex-Servicemen and former members of the Resistance movements of the following countries :—Holland, Norway, Belgium, France and Denmark, with their dependants. The nationalities of the 9,295 migrants who arrived in Australia under this scheme during the years 1947 to 1950 were 6,097 Dutch, 2,389 United States of America, 383 French, 301 British, 57 Belgian, 44 Danish and 24 Norwegian.

9. **Dutch Migration Agreement.**—An agreement was made in December, 1946, between the Commonwealth Government and the Netherlands Emigration Foundation, which is sponsored by the Netherlands Government, for the introduction of migrants from Holland. The agreement provides for the admission of Dutch settlers who are required to possess a very much smaller amount of landing money than is usually required of foreign migrants. The Netherlands authorities are responsible for providing shipping for these migrants. The Netherlands Emigration Foundation has appointed a representative in Australia to attend to the reception, placement in employment and after-care of migrants arriving under this agreement.

The number of migrants who settled in Australia under this agreement to the end of 1950 was 568.

10. **Migration of Former European Displaced Persons.**—On 21st July, 1947, the Commonwealth Government entered into an agreement with the International Refugee Organization covering the resettlement in Australia of European displaced persons who are under the protection of that body.

Under this agreement, the International Refugee Organization undertook responsibility for provision of transport and the care of the displaced persons until their disembarkation in Australia. The Commonwealth undertook selection in Europe and responsibility for reception in Australia, placement in employment and after-care after arrival. The Commonwealth also undertook to make an *ex gratia* payment to the International Refugee Organization of £10 sterling per person towards the cost of travel of each adult migrant carried under the agreement.

Eligibility for selection is based on similar standards of age, physical fitness and general suitability of settlement as apply under other schemes of encouraged migration operated by the Commonwealth. There is no restriction on the nationality of migrants selected, the only limiting factor in this regard is that applicants must be displaced persons within the definition accepted by the International Refugee Organization.

All applicants within the worker age limits under this scheme enter into an undertaking to remain in the employment found for them by the Commonwealth for a period of two years from the date of their arrival, and their continued residence in the Commonwealth is subject to their observing this undertaking. On completion of this period, these migrants may be granted indefinite admission to the Commonwealth. Migrants arriving under this scheme are in the same position as other foreign migrants admitted to the Commonwealth, and are eligible to receive health and medical service benefits, sickness and unemployment benefit, maternity allowance and child endowment.

In order to ensure suitable arrangements for the reception of these migrants and their absorption into the community, the Commonwealth has set up Reception and Training Centres at Bathurst in New South Wales and Bonegilla in Victoria. At these Centres migrants are medically examined and X-rayed (to reveal any disabilities which may have developed since the medical examination at the time of selection) and interviewed individually to assess their employment potential. During the period of their stay in Reception and Training Centres, which is usually three or four weeks, they are given a course of instruction in utilitarian English and the Australian way of life, and are paid a special social service benefit from which an amount is deducted towards the cost of their upkeep, leaving them 5s. per week for incidental expenditure. To cope with the numbers arriving during 1950, the temporary Reception and Training Centres established in 1949 were maintained at Greta, New South Wales and Northam in Western Australia.

At the end of this training period, breadwinners amongst the arrivals are placed in employment where employer-found accommodation near the job is available. In cases where there is no accommodation near the job available for the breadwinner's dependants they, instead of accompanying him to the job, are provided with accommodation at the breadwinner's expense in specially established Immigration Dependants' Holding Centres until such time as he is able to find other accommodation for them. These Holding Centres have been established in all States; generally former Service Camps have been adapted for the purpose.

Priority in employment placements is given to essential industries which are experiencing difficulties in obtaining adequate supplies of Australian labour, and particularly those industries associated with the supply of building materials, such as the timber industry, the clay products industry and the cement industry. In some cases, Workers' Hostels have been established by the Commonwealth Government to accommodate migrant workers in these and similar industries. Priority is also given to road and rail construction and to water and sewerage undertakings associated with housing projects.

Single women and married women without children are, for the most part, employed as nurses, nurses' assistants and as domestics in hospitals and private homes.

Under this scheme Australia agreed to take 167,000 migrants. Limitations of shipping restricted the numbers received in the first two years and only 840 arrived in 1947 and 9,953 in 1948. Thereafter shipping became more freely available to the International Refugee Organization, and 75,486 migrants arrived in 1949 and 70,212 in 1950. The total of arrivals from the inception of the scheme to the end of 1950 was 156,491.

The Commonwealth Government is considering the negotiation during 1951 of Assisted Passage Migration Agreements with the Governments of the Netherlands and Italy* to replace the Displaced Persons Scheme, which has provided the greater part of Australia's intake of alien migrants during the three year period 1948–1950.

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* The Australia-Netherlands Passage Migration Agreement was signed on 22nd February, 1951 and operative from 1st April, 1951; the Australia-Italy Assisted Passage Migration Agreement was signed on 29th March, 1951 and operative from 1st August, 1951.

(B) The Regulation of Immigration into Australia.

1. Powers and Legislation of the Commonwealth.—(i) *Constitutional.* Under Section 51, xxvii. and xxviii. of the Commonwealth Constitution, the Parliament of the Commonwealth is empowered to make laws with respect to immigration and emigration and the influx of criminals.

(ii) *Legislation.* A summary of the provisions of the Immigration Act 1901–1925 and the Contract Immigrants Act 1905 (except the provisions of the Amending Immigration Acts of 1920, 1924 and 1925, which will be found in Official Year Book No. 21, p. 927), containing particulars regarding the admission of immigrants, prohibited immigrants, the liabilities of shipmasters and others, and kindred matters will be found in Official Year Book No. 12, pp. 1166–8.

The Immigration Act 1930.—Under this Act it is provided that Section 5, sub-section (1) of the Immigration Act 1901–1925 applies to any person, who, since the commencement of the Immigration Restriction Act 1901, evaded an officer when entering Australia, or gained admission or re-admission by fraudulent means. Steps can be taken to deal with such persons as prohibited immigrants at any time after they have landed in Australia.

The Immigration Act 1932.—This Act provides (*a*) that any alien who fails to satisfy an officer that he holds a landing permit, or that his admission has been authorized, may be prohibited from landing; (*b*) for the increase from three to five years of the period during which a person may be declared a prohibited immigrant; (*c*) that a person not a British subject and who has been convicted of a crime of violence against the person may be deported pursuant to an order of the Minister without his being subjected to a dictation test; (*d*) for the deportation of a person who has been convicted of a criminal offence or who has become an inmate of an insane asylum or public charitable institution within five years from the date of arrival instead of three years as hitherto; and (*e*) that where the wife of a person whom it is proposed to deport so desires, her name and the names of her dependent children may be included in her husband's deportation order. This would of course apply only to wives and children who were themselves immigrants.

The Immigration Act 1933.—This Act provides that Section 8A, as amended by the Immigration Act 1932—*see* (*d*) above—shall apply to persons who arrived in Australia since the commencement of the Section, i.e., since 2nd December, 1920. It also makes statutory provision for the taking of securities for compliance with the provisions of the Act.

The Immigration Act 1935.—The main purpose of this Act was to add a penalty clause to Section 5 of the principal Act, to overcome a legal difficulty which had arisen in regard to relying on Section 7 for the imposition of penalties on persons convicted under Section 5 on charges of being prohibited immigrants offending against the Act.

The Immigration Act 1940.—This Act provides (*a*) that the holder of a landing permit shall on demand satisfy an officer that he is able to comply with the conditions specified in the permit; (*b*) for the issue of, and extensions of, certificates of exemption; (*c*) that a non-British person who is convicted of a crime of violence against the person or of extorting any money or thing by force or threat, or of any attempt to commit such a crime or who is convicted of any other criminal offence for which he is sentenced to imprisonment for one year or longer may be deported; (*d*) for the exercise of discretion by the Minister in enforcing an order for the deportation of a person: and (*e*) for the provision and enforcement of maintenance guarantees in relation to persons seeking to enter Australia.

The Immigration Act 1948.—The main purpose of this Act is to provide for the registration of persons acting as agents in respect of (*a*) applications for the admission of intending immigrants to Australia; and (*b*) arranging or securing passages for intending migrants. The Act provides that only registered agents shall be permitted to receive fees for such services and it prescribes the charges which agents may make in return for their services.

The Immigration Act 1949.—This Act provides for the amendment of Section 4 of the Principal Act in relation to the grant of certificates of exemption. The object of the Act is to revalidate certificates which had become invalid following on a High Court decision.

The Aliens Deportation Act 1948.—This Act repeals the Aliens Deportation Act 1946 and empowers the Minister for Immigration to order the deportation of an alien who after investigation by a Commissioner is reported as not being a fit and proper person to be allowed to remain in Australia.

The War-time Refugees Removal Act 1949.—The purpose of the Act is to enable the Minister for Immigration to effect the repatriation to their own countries of persons given refuge in Australia during the war. Under the Act deportation is limited to persons in respect of whom orders for deportation were issued prior to 12th July, 1950.

The Immigration (Guardianship of Children) Act 1946–1948.—This Act provides that the Minister for Immigration becomes the legal guardian of every person under the age of 21 years who comes to Australia other than in the charge of, or for the purpose of living in the care of, a parent or relative. It is primarily administered through the child welfare authorities in each State who, as the Minister's delegates under the Act, supervise the welfare of each "immigrant child".

2. **Conditions of Immigration into Australia.**—(i) *Immigration of Non-European Persons.* In pursuance of the established policy, the general practice is not to permit Asiatics or other coloured immigrants to enter Australia for the purpose of settling permanently.

Special arrangements were made with India, China and other Eastern countries, under which facilities were afforded for subjects of those countries who were bona fide merchants, students, or tourists to enter and remain in Australia under exemptions whilst they retained their status. Permission is also given for nationals of these countries to enter Australia as assistants or substitutes for local traders domiciled in Australia. Such persons are permitted to remain so long as they retain their status.

(ii) *Immigration of White Aliens.* Aliens seeking to enter Australia for permanent residence are required to obtain landing permits or special authority for admission from the Department of Immigration.

The present immigration policy provides for the admission of aliens who satisfy the Commonwealth's requirements as to health, character, freedom from security risk and general suitability as settlers.

(iii) *General Information.* General information as to conditions of entry into Australia may be obtained from the following officers :—

(*a*) In Australia—the Secretary, Department of Immigration, Canberra, A.C.T., and Commonwealth Migration Officers in the capital cities of the various States ; (*b*) in Great Britain—the Official Secretary, High Commissioner's Office, Australia House, Strand, London ; (*c*) in other British Dominions—the High Commissioner for Australia ; (*d*) in other countries where Australia is represented—the Secretary, Australian Legation.

For details of the Dominions and countries included *see* the section entitled "Diplomatic and other Representatives Overseas and in Australia" in Chapter XXIX.

3. **Nationality or Race of Persons Arriving.**—For details of the nationality and racial origin of persons who arrived in Australia during the years 1949 and 1950 *see* § 9, paras. 4 and 5.

(C) Passports.

Provision is made in the Immigration Act 1901–1949 for the production of a passport by each person over 16 years of age who desires to enter Australia. Under the Passports Act 1920, it was compulsory also for each person over 16 years of age to be in possession of a passport or other document authorizing his departure. This Act has now been superseded by the Passports Act 1938, which repealed the compulsory provisions. The Act extends to the Territories of Australia, including Papua, Norfolk Island and the Trust Territory of New Guinea.

Although not compulsory under the 1938 Act to be in possession of a passport when leaving Australia, it is very desirable in their own interests that Australians proceeding abroad should provide themselves with a passport as a means of establishing their identity and nationality. The possession of a passport is necessary for admission into most countries overseas, and the holder of an Australian passport also has no difficulty in landing on return to Australia. The charge for an Australian passport is £1.

As a result of the Nationality and Citizenship Act 1948 (*see* below § 11) and the enactment of similar citizenship legislation in other British Commonwealth countries, it is now the general rule that Australian passports are issued only to Australian citizens. Citizens of other British Commonwealth countries secure passports from their own High Commissioners in Australia. Australian citizens abroad may now secure passports only from Australian representatives.

Diplomatic and Official passports are now issued to members of the Australian diplomatic service and other Government officials proceeding abroad on official business.

Applicants for passports are required to produce evidence of their identity and nationality (e.g. Birth Certificates).

§ 11. Citizenship and Naturalization.

1. **Commonwealth Legislation.**—The Nationality and Citizenship Act 1948 commenced on Australia Day (26th January), 1949, and repealed all previous Commonwealth legislation on this subject. The most significant effect of the Act was the creation for the first time of the status of "Australian Citizen". In this respect the Act was complementary to citizenship legislation passed or about to be passed by other countries of the British Commonwealth. All Australian citizens, and the citizens of other countries of the British Commonwealth, are deemed to be British subjects. Australian citizenship was automatically acquired as from 26th January, 1949, by persons who were British subjects at that date and who either (*a*) were born in Australia or New Guinea; or (*b*) were naturalized in Australia; or (*c*) had been residing in Australia during the five years immediately preceding 26th January, 1949; or (*d*) were born outside Australia of fathers to whom (*a*) or (*b*) above applied (provided the persons concerned had entered Australia without being placed under any immigration restriction); or (*e*) were women who had been married to men who became Australian citizens under the above headings (provided that the women concerned had entered Australia without being placed under immigration restriction).

After the Act's commencement citizenship may be acquired in the following ways:—(*a*) by birth in Australia; (*b*) by birth outside Australia, of a father who is an Australian citizen, provided that the birth is registered at an Australian Consulate; (*c*) by registration—Certificates of Registration as Australian citizens may be granted by the Minister to British Subjects or Irish citizens who make application and satisfy the Minister that they can comply with specified requirements as to residence in Australia, good character and intention to reside permanently in Australia; (*d*) by naturalization—Certificates of Naturalization as Australian citizens may be granted by the Minister to aliens who make application and can comply with requirements somewhat similar to those previously required under the Nationality Act 1920–1946. New requirements for naturalization are—(i) a Declaration of Intention to apply must be lodged at least two years before the final application; (ii) five years residence in Australia is required; (iii) applicants must have an adequate knowledge of the responsibilities and privileges of citizenship; (iv) Certificates do not take effect until the applicant takes the Oath of Allegiance. The Oath is now taken in open Court, where the Judge or Magistrate addresses the applicant upon the responsibilities and privileges of citizenship before the Oath is administered and the Certificate of Naturalization delivered to the applicant.

Under the Act, the independence of married women in nationality matters is recognized, and British nationality is restored to those women who had lost it through marriage to aliens. In future, marriage will not affect a woman's nationality. Alien women who marry Australian citizens may, however, be naturalized under somewhat easier conditions than those which apply to other aliens.

2. **Certificates Granted.**—(i) *Australia.* The following figures relate to certificates issued under the Nationality and Citizenship Act 1948 during the years 1949 and 1950 :—

NATURALIZATION : CERTIFICATES GRANTED, 1949 AND 1950.

PREVIOUS NATIONALITIES OF RECIPIENTS.

Nationality.	Certificates Granted.		Nationality.	Certificates Granted.	
	1949.	1950.		1949.	1950.
Albanian	24	16	Italian	708	368
American, United States	42	24	Latvian	9	3
Argentinian	2	1	Lebanese	26	20
Armenian	1	..	Lithuanian	4	1
Austrian	44	25	Norwegian	27	26
Belgian	8	1	Palestinian	13	(a)
Brazilian	2	..	Polish	597	175
Bulgarian	21	7	Rumanian	6	2
Czechoslovak	45	48	Spanish	16	8
Danish	16	18	Swedish	26	17
Dutch	44	57	Swiss	29	14
Egyptian	1	..	Syrian	4	4
Estonian	34	19	Turkish	4	1
Finnish	52	17	Ukrainian	3	2
French	13	14	U.S.S.R. Citizens	12	3
German	225	115	Yugoslav	80	90
Greek	276	208	Stateless	68	67
Hungarian	11	4			
Iraqi	..	2	Total	2,493	1,377

COUNTRIES IN WHICH RECIPIENTS ORDINARILY RESIDED IMMEDIATELY BEFORE ENTERING AUSTRALIA OR NEW GUINEA.

Country.	Certificates Granted.		Country.	Certificates Granted.	
	1949.	1950.		1949.	1950.
Albania	22	14	Japan	3	3
Argentine	5	1	Latvia	4	3
Austria	27	13	Lebanon	28	20
Belgium	6	3	Lithuania	3	1
Brazil	2	1	New Caledonia	6	7
Bulgaria	17	7	New Zealand	5	7
Burma	..	1	Norway	21	24
Canada	8	2	Peru	1	..
Ceylon	4	1	Philippines	2	1
China	27	11	Poland	39	27
Cuba	1	..	Rumania	4	1
Cyprus	1	..	Singapore	9	9
Czechoslovakia	27	36	South Africa	3	2
Denmark	11	16	South America	6	6
Dodecanese Islands	22	15	Spain	12	6
Egypt	32	24	Sweden	17	16
Estonia	31	15	Switzerland	22	5
Finland	38	15	Syria	1	6
France	20	21	Tonga Islands	1	1
Germany	135	86	Turkey	4	2
Greece	257	187	Ukraine	1	..
Holland	22	32	United Kingdom	636	171
Hong Kong	4	1	United States of America	47	32
Hungary	8	2	U.S.S.R. (Russia)	15	9
India	5	5	Yugoslavia	75	78
Indonesia	17	17	Other	5	9
Iran	48	18			
Israel (Palestine)	44	35			
Italy	682	352	Total	2,493	1,377

(a) Since Palestine became part of Israel, former residents of Palestine have been included as "Stateless" if unable to produce evidence of Israeli nationality.

(ii) *States.* The certificates of naturalization granted in 1950 (1949 figures in parentheses) were issued in respect of residents of the various States and Territories as follows :—New South Wales, 506 (866) ; Victoria, 346 (559) ; Queensland, 140 (295) ; South Australia, 119 (105) ; Western Australia, 206 (204) ; Tasmania, 34 (436) ; Northern Territory, 13 (11) ; Australian Capital Territory, 7 (13) ; and New Guinea, 6 (4) ; Total, 1,377 (2,493).

§ 12. Population of Territories.

At the Census of 30th June, 1947, arrangements were made to obtain complete information concerning not only the two internal territories of Australia—Northern Territory and Australian Capital Territory—but also the external Territories under the control of Australia, namely :—Norfolk Island ; Papua ; Trust Territory of New Guinea ; and Trust Territory of Nauru.

Figures respecting population and number of dwellings in each Territory at the Census of 1947 are summarized in the following table :—

POPULATION AND DWELLINGS : TERRITORIES, 30th JUNE, 1947.

(EXCLUDING INDIGENOUS POPULATION.)

Territory.	Population.			Dwellings.			
	Males.	Females.	Persons.	Occupied.	Unoccupied.	Being Built.	Total.
Northern Territory ..	7,378	3,490	10,868	2,697	34	22	2,753
Australian Capital Territory	9,092	7,813	16,905	3,615	52	316	3,983
Norfolk Island	505	433	938	279	43	5	327
Papua	2,057	1,182	3,239	(*a*) 769	(*b*)	(*b*)	(*b*)
Trust Territory of New Guinea	4,369	1,831	6,200	*a* 1,391	(*b*)	(*b*)	(*b*)
Trust Territory of Nauru ..	1,413	63	1,476	54	9	10	73

(*a*) Includes temporary dwellings constructed of iron, sisalcraft, native materials, canvas, etc., in war-devastated areas. (*b*) Not available.

Particulars concerning the indigenous populations of these Territories are included in Chapter X.—The Territories of Australia.

§ 13. The Aboriginal Population of Australia.

In Official Year Book No. 17, pp. 951–61, a brief account is given of the Australian aboriginal population, its origin, its numbers as estimated from time to time, and the steps taken for its protection. On pp. 914–16 of Official Year Book No. 22, particulars are shown for each of the States and Territories of Australia at successive periods, while a special article dealing with the estimated number and distribution of the native population at the date of first settlement of the white race in the continent appears on pp. 687–96 of Official Year Book No. 23.

The aboriginals are scattered over the whole of the mainland but the majority are concentrated in Western Australia, Queensland and the Northern Territory. Details of the number in each State at the June, 1947 Census are shown in the following table. Full-blood aboriginals in employment or living in proximity to settlements were enumerated at the Census, while estimates of the total numbers, including those living in the wild state, were furnished by the Protectors of Aboriginals. Half-caste aboriginals are included in the numbers of the population and are of course enumerated at the Census. The figures shown for Queensland are exclusive of 5,000 Torres Strait Islanders.

ABORIGINAL POPULATION, 30th JUNE, 1947.

State or Territory.	Full-blood.				Half-caste. (Enumerated at the Census).			Total, Full-blood and Half-caste.
	In Employment or Living in Proximity to Settlements.(*a*)			Estimate of Total Numbers.(*b*)				
	Males.	Females.	Persons.	Persons.	Males.	Females.	Persons.	Persons.
New South Wales	546	407	953	(*c*) 953	5,498	5,109	10,607	11,560
Victoria	100	108	208	(*c*) 208	537	532	1,069	1,277
Queensland	3,504	2,822	6,326	9,100	3,684	3,527	7,211	16,311
South Australia ..	259	205	464	2,139	1,103	1,054	(*d*)2,157	4,296
Western Australia ..	2,664	2,269	4,933	20,338	2,359	2,215	(*d*)4,574	24,912
Tasmania	..	..	..	..	127	87	214	214
Northern Territory ..	5,615	5,370	10,985	13,900	660	587	1,247	15,147
Aust. Capital Territory ..	..	..	..	..	58	42	100	100
Total	12,688	11,181	23,869	46,638	14,026	13,153	27,179	73,817

(*a*) Enumerated at the Census. (*b*) Furnished by the Protectors of Aboriginals. (*c*) Census totals. (*d*) In addition to these totals, the Protectors of Aboriginals estimated that there were 826 half-caste and mixed bloods in South Australia and 1,322 in Western Australia, presumably living in the nomadic state.

According to the Annual Reports of the Protectors of Aboriginals, there has been little change in the numbers of aboriginals in most States since 1947. In Western Australia, however, the estimate for those living beyond the confines of civilization has been revised, and the total number of full-blood and half-caste aboriginals in that State at 30th June, 1949 was estimated at 22,763.

CHAPTER XIV.

VITAL STATISTICS.

NOTE.—1. In the Vital Statistics chapter of Official Year Book No. 37, tables covered 1946 and, where possible, 1945. In issue No. 38 these tables covered 1948 and where possible, 1947. In the present issue these tables cover 1950 and, where possible, 1949. In some cases, however, space does not permit of the inclusion of figures for 1949. These figures will be found in *Demography Bulletin* No. 67 unless otherwise specifically indicated.

2. Figures for Australia throughout are exclusive of full-blood aboriginals.

§ 1. Marriages.

1. **Number, 1950.**—The number of marriages registered in Australia during the year ended 31st December, 1950 was 75,599, giving a rate of 9.24 per 1,000 of the mean population for the year. In 1942 both the number (86,060) and the rate (11.99) were the highest on record. A summary of the number of marriages registered in each State and Territory since 1861 is given in the following table :—

MARRIAGES.

Period.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T.	Aust.
ANNUAL AVERAGES.									
1861–1865 ..	3,384	4,447	738	1,245	153	668	..	..	10,635
1866–1870 ..	3,654	4,580	930	1,287	164	629	..	..	11,244
1871–1875 ..	4,242	4,874	1,255	1,494	167	658	..	..	12,690
1876–1880 ..	5,181	5,083	1,493	2,137	196	817	..	..	14,907
1881–1885 ..	7,148	6,718	2,326	2,476	223	1,000	..	..	19,891
1886–1890 ..	7,730	8,567	3,054	2,067	299	959	..	..	22,676
1891–1895 ..	7,985	7,543	2,705	2,142	466	905	..	..	21,746
1896–1900 ..	9,094	7,852	3,102	2,190	1,572	1,098	(a)	..	24,908
1901–1905 ..	10,435	8,294	3,154	2,412	2,024	1,342	7	..	27,668
1906–1910 ..	12,742	9,502	4,203	3,159	2,098	1,446	10	(b)	33,160
1911–1915 ..	16,741	11,762	5,696	4,032	2,552	1,549	16	4	42,352
1916–1920 ..	15,744	11,321	5,397	3,756	2,145	1,443	27	5	39,838
1921–1925 ..	18,041	13,293	6,072	4,200	2,564	1,594	14	4	45,782
1926–1930 ..	19,253	12,955	6,279	4,036	3,167	1,506	23	30	47,249
1931–1935 ..	18,742	12,773	6,950	3,967	3,328	1,638	29	53	47,480
1936–1940 ..	25,295	17,784	8,982	5,726	4,399	2,187	83	85	64,541
1941–1945 ..	28,506	19,450	10,563	6,517	4,668	2,097	71	109	71,981
1946–1950 ..	30,162	20,453	10,666	6,581	5,205	2,529	114	181	75,891
YEARLY TOTALS.									
1946 ..	31,684	21,405	11,666	6,700	5,171	2,650	63	157	79,496
1947 ..	30,172	20,437	10,999	6,668	5,282	2,584	124	191	76,457
1948 ..	30,164	20,035	10,125	6,704	5,186	2,428	110	150	74,902
1949 ..	28,757	20,066	10,234	6,247	4,951	2,422	130	192	72,999
1950 ..	30,036	20,320	10,304	6,585	5,434	2,560	144	216	75,599

(a) Included with South Australia prior to 1901. (b) Part of New South Wales prior to 1911.

2. **Crude Marriage-rates.**—The crude marriage-rates for each State and Territory for a series of years are given hereunder :—

CRUDE MARRIAGE-RATES.(*a*)

Period.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T.	Aust.
AVERAGE ANNUAL RATES.									
1861–1865 ..	9.05	7.84	13.56	8.84	8.34	7.34	..	..	8.54
1866–1870 ..	8.05	6.90	9.11	7.37	6.97	6.44	..	..	7.42
1871–1875 ..	7.79	6.37	9.14	7.63	6.43	6.38	..	..	7.16
1876–1880 ..	7.84	6.16	7.67	8.73	6.89	7.51	..	..	7.23
1881–1885 ..	8.54	7.42	8.88	8.35	6.99	8.20	..	..	8.11
1886–1890 ..	7.51	8.16	8.54	6.65	6.92	7.02	..	..	7.75
1891–1895 ..	6.70	6.45	6.51	6.34	7.01	6.00	..	..	6.53
1896–1900 ..	6.96	6.63	6.61	6.17	10.15	6.63	(*b*)	..	6.85
1901–1905 ..	7.37	6.88	6.12	6.75	9.26	7.49	1.68	..	7.10
1906–1910 ..	8.11	7.63	7.52	8.34	8.06	7.71	2.61	(*c*)	7.89
1911–1915 ..	9.32	8.48	8.69	9.31	8.26	8.01	4.33	1.93	8.86
1916–1920 ..	8.03	7.82	7.64	8.20	6.80	7.20	5.74	1.91	7.82
1921–1925 ..	8.20	8.28	7.62	8.13	7.27	7.40	3.82	1.21	8.04
1926–1930 ..	7.86	7.42	7.10	7.12	7.80	6.97	5.11	3.86	7.52
1931–1935 ..	7.20	7.02	7.35	6.83	7.58	7.19	5.92	5.74	7.16
1936–1940 ..	9.29	9.52	8.80	9.65	9.49	9.25	13.28	7.22	9.35
1941–1945 ..	9.97	9.86	10.04	10.61	9.74	8.61	7.18	7.57	9.94
1946–1950 ..	9.86	9.73	9.45	9.93	10.00	9.51	9.20	10.00 (*d*)	9.77
YEARLY RATES.								(*d*)	
1946 ..	10.76	10.57	10.70	10.55	10.49	10.51	5.96	9.88	10.65
1947 ..	10.11	9.95	9.95	10.32	10.50	10.02	11.39	11.30	10.09
1948 ..	9.96	9.59	9.01	10.18	10.07	9.18	9.03	8.25	9.71
1949 ..	9.23	9.38	8.92	9.27	9.29	8.88	9.65	10.05	9.23
1950 ..	9.31	9.22	8.74	9.40	9.73	9.07	9.65	10.53	9.24

(*a*) Number of marriages (not persons married) per 1,000 of mean population. (*b*) Included with South Australi prior to 1901. (*c*) Part of New South Wales prior to 1911. (*d*) Rates based on revised mean population estimates shown on p. 527 are as follows :—1946–50, 9.35 ; 1947, 11.21 ; 1948, 7.81 ; 1949, 9.06 ; 1950, 9.16.

3. **Proportion of Persons Married to Unmarried Population.**—As the marriage-rates in some international tabulations are based on the unmarried population aged 15 years and over, the corresponding rates have been calculated for Australia for the last seven census periods. The period in each case comprises the census year with the year immediately preceding and the year immediately following, and the figures are as follows :—

PROPORTION OF PERSONS MARRIED TO UNMARRIED POPULATION : AUSTRALIA.

Period.	Rate.(*a*)	Period.	Rate.(*a*)
1880–82	48.98	1920–22	56.22
1890–92	45.74	1932–34	42.88
1900–02	42.14	1946–48	71.33
1910–12	50.44		

(*a*) Number of persons married per 1,000 unmarried persons aged 15 years and over.

4. **Crude Marriage-rates of Various Countries.**—The following table gives the crude marriage-rates for Australia and each State thereof in comparison with the rates for various other countries.

CRUDE MARRIAGE-RATES (*a*) : VARIOUS COUNTRIES.

Country.	1908–13.	1921–25.	1926–30.	1931–35.	1950.
Yugoslavia	(*b*)	10.6	9.5	7.8	11.4
United States of America	(*b*)	10.6	9.9	9.2	11.0
Czechoslovakia	7.7	10.0	9.3	8.2	(*d*) 10.4
Hungary	(*b*)	10.0	9.2	8.5	(*e*) 10.4
Union of South Africa (*c*)	(*b*)	8.0	9.3	9.4	9.9
Austria	(*b*)	9.6	7.5	6.8	9.2
New Zealand(*f*)	8.5	8.0	7.7	7.3	9.2
Australia(*g*)	**8.4**	**8.0**	**7.5**	**7.2**	**9.2**
Western Australia(g)	8.1	7.3	7.8	7.6	9.7
South Australia(g)	9.1	8.1	7.1	6.8	9.4
New South Wales(g)	8.8	8.2	7.9	7.2	9.3
Victoria(g)	8.0	8.3	7.4	7.0	9.2
Tasmania(g)	7.9	7.4	7.0	7.2	9.1
Queensland(g)	8.2	7.6	7.1	7.3	8.7
Canada	(*b*)	7.3	7.3	6.4	9.0
Rumania	9.5	10.4	9.4	9.0	(*d*) 8.9
Japan	9.3	8.8	8.0	7.6	8.6
Finland	6.1	7.1	7.2	7.2	8.5
Denmark	7.3	7.9	7.8	8.7	8.4
Argentine	6.8	7.2	7.4	6.5	(*e*) 8.4
Norway	6.2	6.3	6.1	6.5	8.3
Belgium	7.9	10.6	9.1	7.8	8.2
Netherlands	7.5	8.2	7.7	7.2	8.2
Great Britain and Northern Ireland	7.3	7.7	7.5	7.9	8.1
England and Wales	7.6	7.8	7.7	8.1	8.1
Scotland	6.7	7.1	6.7	7.1	7.8
Northern Ireland	5.2	6.2	5.9	6.2	6.6
France	7.9	9.5	8.2	7.4	7.9
Switzerland	7.3	7.7	7.5	7.7	7.9
Chile	(*b*)	6.9	9.3	6.9	7.9
Italy	7.7	9.0	7.3	6.8	7.7
Sweden	6.0	6.3	6.7	7.3	7.7
Portugal	6.9	7.9	6.9	6.6	7.6
Spain	7.0	7.3	7.3	6.5	7.4
Greece	(*b*)	7.5	7.1	6.8	(*d*) 6.6
Mexico	(*b*)	(*b*)	(*b*)	6.1	5.8
Eire	5.2	4.9	4.6	4.6	5.4

(*a*) Number of marriages per 1,000 of mean population. (*b*) Not available. (*c*) White population only. (*d*) 1949. (*e*) 1948. (*f*) Excludes Maoris. (*g*) Excludes full-blood aboriginals.

5. **Age and Conjugal Condition at Marriage.**—(i) *General.* Age at marriage in single ages and previous conjugal condition of bridegrooms and brides in 1949 and 1950 will be found in *Demography Bulletins* Nos. 67 and 68. A summary in age-groups is given hereunder for these years. There were 5,046 males aged less than twenty-one years married during 1950 while the corresponding number of females was 21,186. At the other extreme there were 89 bachelors and 43 spinsters in the age-group 65 years and over.

Information regarding the percentage distribution of bridegrooms and brides according to conjugal condition is shown for 1907–10, in five-year periods thereafter until 1950 and for each of the years 1948, 1949 and 1950.

AGE AND CONJUGAL CONDITION OF PERSONS MARRIED : AUSTRALIA.

Age at Marriage (Years).	Bridegrooms.				Brides.			
	Bachelors.	Widowers.	Divorced.	Total.	Spinsters.	Widows.	Divorced.	Total.
				1949.				
Under 20..	2,108	2	..	2,110	13,379	6	6	13,391
20–24 ..	29,279	22	75	29,376	33,520	87	359	33,966
25–29 ..	20,036	108	651	20,795	10,704	363	1,284	12,351
30–34 ..	6,895	259	1,082	8,236	3,431	488	1,176	5,095
35–39 ..	3,212	353	1,093	4,658	1,715	492	980	3,187
40–44 ..	1,546	410	775	2,731	874	457	542	1,873
45–49 ..	839	452	501	1,792	473	436	332	1,241
50–54 ..	373	461	280	1,114	244	361	157	762
55–59 ..	208	488	168	864	138	281	66	485
60–64 ..	93	438	73	604	78	248	25	351
65 and over	92	601	26	719	41	243	13	297
Total ..	64,681	3,594	4,724	72,999	64,597	3,462	4,940	72,999
				1950.				
Under 20..	2,186	..	1	2,187	13,895	7	7	13,909
20–24 ..	30,442	14	66	30,522	34,633	106	348	35,087
25–29 ..	20,552	131	707	21,390	10,848	312	1,304	12,464
30–34 ..	6,899	208	1,085	8,192	3,427	518	1,303	5,248
35–39 ..	3,372	311	1,197	4,880	1,785	597	1,046	3,428
40–44 ..	1,682	414	845	2,941	930	468	687	2,085
45–49 ..	817	419	609	1,845	497	438	364	1,299
50–54 ..	416	482	347	1,245	255	437	165	857
55–59 ..	199	543	172	914	136	345	91	572
60–64 ..	128	494	98	720	64	233	28	325
65 and over	89	626	48	763	43	258	24	325
Total ..	66,782	3,642	5,175	75,599	66,513	3,719	5,367	75,599
				PERCENTAGE OF TOTAL.				
1907–10 ..	93.11	6.41	0.48	100.00	94.17	5.22	0.61	100.00
1911–15 ..	93.92	5.51	0.57	100.00	94.62	4.62	0.76	100.00
1916–20 ..	92.82	6.33	0.85	100.00	93.44	5.59	0.97	100.00
1921–25 ..	92.18	6.38	1.44	100.00	92.99	5.49	1.52	100.00
1926–30 ..	92.31	5.93	1.76	100.00	93.46	4.55	1.99	100.00
1931–35 ..	92.63	5.39	1.98	100.00	94.37	3.53	2.10	100.00
1936–40 ..	92.59	4.82	2.59	100.00	93.94	3.38	2.68	100.00
1941–45 ..	91.44	4.77	3.79	100.00	92.11	3.93	3.96	100.00
1946–50 ..	88.82	4.74	6.44	100.00	88.71	4.74	6.55	100.00
1948 ..	88.65	4.71	6.64	100.00	88.72	4.55	6.73	100.00
1949 ..	88.61	4.92	6.47	100.00	88.49	4.74	6.77	100.00
1950 ..	88.34	4.82	6.84	100.00	87.98	4.92	7.10	100.00

(ii) *Relative Ages of Bridegrooms and Brides.* The relative ages of bridegrooms and brides in 1949 and 1950 are shown in single years in *Demography Bulletins* Nos. 67 and 68. A summary in age-groups of five years is given below :—

RELATIVE AGES OF BRIDEGROOMS AND BRIDES : AUSTRALIA.

Age of Bridegroom (Years).	Total Bridegrooms.	Age of Bride (Years).							
		Under 15.	15–19.	20–24.	25–29.	30–34.	35–39.	40–44.	45 and over.
					1949.				
Under 20 . .	2,110	7	1,514	556	29	2	. .	1	1
20–24 . .	29,376	10	8,488	18,378	2,216	227	39	11	7
25–29 . .	20,795	2	2,706	11,255	5,467	1,071	237	48	9
30–34 . .	8,236	. .	487	2,697	2,736	1,540	603	140	33
35–39 . .	4,658	. .	127	796	1,268	1,176	890	294	107
40–44 . .	2,731	. .	30	195	432	635	711	489	239
45–49 . .	1,792	. .	11	62	131	283	410	412	483
50–54 . .	1,114	. .	4	14	48	103	177	248	520
55–59 . .	864	. .	3	11	15	34	75	133	593
60–64 . .	604	. .	1	2	4	18	29	64	486
65 and over	719	. .	1	. .	5	6	16	33	658
Total Brides	72,999	19	13,372	33,966	12,351	5,095	3,187	1,873	3,136
					1950.				
Under 20 . .	2,187	5	1,619	529	28	2	3	. .	1
20–24 . .	30,522	6	8,960	18,967	2,286	242	47	10	4
25–29 . .	21,390	3	2,692	11,928	5,320	1,124	260	52	11
30–34 . .	8,192	2	466	2,583	2,762	1,587	612	133	47
35–39 . .	4,880	. .	112	759	1,370	1,209	939	373	118
40–44 . .	2,941	. .	32	221	441	662	779	538	268
45–49 . .	1,845	. .	8	64	163	273	443	442	452
50–54 . .	1,245	. .	4	22	60	97	206	273	583
55–59 . .	914	. .	. .	8	24	35	89	146	612
60–64 . .	720	. .	. .	5	8	11	35	75	586
65 and over	763	. .	. .	1	2	6	15	43	696
Total Brides	75,599	16	13,893	35,087	12,464	5,248	3,428	2,085	3,378

(iii) *Average Ages of Bridegrooms and Brides.* The age at marriage of brides declined slightly during recent years to an average of about 25½ years, although in the period 1937–39 this decline was temporarily arrested and the average rose to almost 26 years. The average ages in years of brides for the past six years were :—1945, 25.93; 1946, 25.51; 1947, 25.60; 1948, 25.57; 1949, 25.65; and 1950, 25.73. For the following five-yearly periods the average ages in years were:—1911–15, 25.76; 1916–20, 26.05; 1921–25, 25.76; 1926–30, 25.57; 1931–35, 25.50; 1936–40, 25.72; 1941–45, 25.68; and 1946–50, 25.61. The average age in years of bridegrooms was 29.29 in 1945, 28.73 in 1946, 28.93 in 1947, 28.88 in 1948, 28.91 in 1949 and 28.99 in 1950. It follows, therefore, that brides are, generally speaking, a little more than three years younger than bridegrooms. The average age of brides and bridegrooms for the years 1940–46 showed the effects of war-time conditions. The proportion of young persons marrying during those years increased, thereby causing decreases in the average ages of both brides and bridegrooms. The difference in age between brides and bridegrooms was 3.36 in 1945, 3.22 in 1946, 3.33 in 1947, 3.31 in 1948, 3.26 in 1949 and 3.26 in 1950.

6. **Previous Conjugal Condition.**—The number of bachelors and spinsters, widowed and divorced persons, who were married during 1950 is shown in the table on page 578. The following table shows the relative conjugal condition of the contracting parties. Corresponding figures for 1949 may be obtained from *Demography Bulletin* No. 67.

PREVIOUS CONJUGAL CONDITION OF PERSONS MARRIED: AUSTRALIA, 1950.

Conjugal Condition of Bridegrooms.	Total Bridegrooms.	Conjugal Condition of Brides.		
		Spinsters.	Widows.	Divorced.
Bachelors	66,782	61,690	1,773	3,319
Widowers	3,642	1,624	1,346	672
Divorced	5,175	3,199	600	1,376
Total Brides ..	75,599	66,513	3,719	5,367

7. **Birthplace of Persons Marrying.**—A table showing birthplace of persons marrying in 1911, 1921 and 1940 may be found on p. 326 of Official Year Book No. 34. In *Demography Bulletins* Nos. 67 and 68, the relative birthplaces of bridegrooms and brides marrying in 1949 and 1950 will be found tabulated in detail.

8. **Occupation of Bridegrooms.**—The distribution of the 75,599 bridegrooms for 1950 amongst classes of occupations was as follows :—Craftsmen, 19,708 ; Operatives, 13,821 ; Commercial and Clerical, 13,195 ; Rural, Fishing and Hunting, 9,305 ; Labourers, 7,119 ; Domestic and Protective Service, 3,991 ; Professional and Semi-Professional 3,302 ; Administrative, 2,670 : and Not Gainfully Occupied and Not Stated, 2,488.

9. **Celebration of Marriages.**—In all the States marriages may be celebrated either by ministers of religion who are registered for that purpose with the Registrar-General, or by certain civil officers—in most cases district registrars. Most of the marriages are celebrated by ministers of religion. The registered ministers in 1950 belonged to more than forty different denominations, some of which, however, have only very few adherents. A number of these have been bracketed under the heading "Other Christian". The figures for 1950 are shown in the following table. Corresponding figures for 1949 may be obtained from *Demography Bulletin* No. 67.

MARRIAGES IN EACH DENOMINATION, 1950.

Denomination.	N.S.W.	Vic.	Qld.	S.A.	W.A.	Tas.	N.T.	A.C.T.	Australia.	
									No.	Proportion of Total.
										%
Church of England	11,432	5,908	2,787	1,461	1,804	948	26	74	24,440	32.33
Roman Catholic ..	6,274	4,093	2,314	922	902	464	44	71	15,084	19.95
Methodist ..	3,302	2,946	1,845	1,926	791	410	29	3	11,252	14.88
Presbyterian ..	3,804	4,009	1,974	378	468	156	10	27	10,826	14.32
Baptist	414	366	196	194	60	90	..	..	1,320	1.75
Congregational ..	385	317	112	266	103	58	..	2	1,243	1.64
Church of Christ ..	88	326	81	182	50	15	..	..	742	0.98
Lutheran.. ..	105	236	247	395	35	1	2	1	1,022	1.35
Salvation Army ..	87	107	98	32	26	17	7	1	375	0.50
Greek Orthodox ..	119	59	53	27	41	..	..	..	299	0.40
Seventh-Day Adventist.. ..	71	30	31	18	17	11	..	..	178	0.23
Unitarian ..	3	36	..	3	..	..	..	..	42	0.06
Other Christian ..	152	121	132	50	57	19	..	..	531	0.70
Hebrew	173	219	11	4	15	..	..	..	422	0.56
Total ..	26,409	18,773	9,881	5,858	4,369	2,189	118	179	67,776	89.65
Civil Officers ..	3,627	1,547	423	727	1,065	371	26	37	7,823	10.35
Grand Total ..	30,036	20,320	10,304	6,585	5,434	2,560	144	216	75,599	100.00
Proportion of Total Marriages celebrated by—										
	%	%	%	%	%	%	%	%	%	
Ministers of Religion ..	87.92	92.39	95.89	88.96	80.40	85.51	81.94	82.87	89.65	
Civil Officers ..	12.08	7.61	4.11	11.04	19.60	14.49	18.06	17.13	10.35	

10. **Divorces.**—Chapter VII.,—Public Justice shows details of the number of marriages dissolved annually by divorce, nullity of marriage and judicial separation. The number dissolved by decrees for divorce and nullity of marriage made absolute and by judicial separation in 1950 was 7,357 or 9.7 per cent. of the number of marriages celebrated during the year.

Detailed tables relating to divorce statistics for 1950 and summary tables for earlier years are shown also in *Demography Bulletin* No. 68, 1950.

§ 2. Fertility and Reproduction.

1. Introductory.—Of the two elements of increase in the population, namely natural increase and net migration, the former has been by far the more important over the past few decades. The level of natural increase depends on the excess of births over deaths and the relation between fertility and mortality determines the rate of reproduction or replacement of the population.

2. Number of Live Births.—(i) *Year*, 1950. **There are various methods of measuring the fertility of the population by relating the number of births to the numbers in the population. In each the basic data are, of course, the numbers of live births.**

The number of live births registered in Australia during 1950 is shown in the table below. The table shows also the number of confinements resulting in one or more live births. The figures exclude cases where the births were of still-born children only. Corresponding figures for 1949 may be obtained from *Demography Bulletin* No. 67.

LIVE BIRTHS, 1950.

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T.	Australia.
				MALE BIRTHS.					
Single births	35,920	24,959	14,536	8,712	7,138	3,673	199	469	95,606
Twins ..	858	577	338	168	152	79	5	15	2,192
Triplets ..	3	18	6	..	3	..	..	..	30
Quadruplets	2	..	..	..	..	..	..	..	2
Total ..	36,783	25,554	14,880	8,880	7,293	3,752	204	484	97,830
				FEMALE BIRTHS.					
Single births	33,991	23,667	13,846	8,256	6,763	3,406	204	459	90,592
Twins ..	808	598	300	170	166	81	3	11	2,137
Triplets ..	8	11	2	..	3	3	..	..	27
Quadruplets	2	..	..	..	3	..	..	..	5
Total ..	34,809	24,276	14,148	8,426	6,935	3,490	207	470	92,761
				TOTAL BIRTHS.					
Single births	69,911	48,626	28,382	16,968	13,901	7,079	403	928	186,198
Twins ..	(a) 1,666	(b) 1,175	(c) 638	338	(d) 318	(d) 160	8	26	(e) 4,329
Triplets ..	(f) 11	(f) 29	(f) 8	..	6	3	..	..	(g) 57
Quadruplets	4	..	..	..	(h) 3	..	..	..	(h) 7
Total ..	71,592	49,830	29,028	17,306	14,228	7,242	411	954	190,591
				CONFINEMENTS (LIVE BIRTHS).					
Mothers of Nuptial Children ..	67,894	47,640	27,291	16,663	13,544	6,881	353	916	181,182
Mothers of Ex-nuptial Children ..	2,885	1,594	1,419	474	522	282	54	25	7,255
Total Mothers	70,779	49,234	28,710	17,137	14,066	7,163	407	941	188,437

(a) Excludes 60 still-born twins. (b) Excludes 21 still-born twins. (c) Excludes 12 still-born twins. (d) Excludes 6 still-born twins. (e) Excludes 105 still-born twins. (f) Excludes 1 still-born triplet. (g) Excludes 3 still-born triplets. (h) Excludes 1 still-born quadruplet.

NOTE.—In States other than New South Wales, South Australia and Western Australia the registration of still-births is not compulsory and it is possible that in some cases where one child only of a multiple pregnancy is live-born the confinement has been treated as a single birth. This applies particularly to South Australia, where registration practice for twins, when one is live-born and one still-born, is to treat each child as a single birth, and for triplets with one still-born, to treat the two live-born as twins, and so on.

(ii) *Years* 1861 *to* 1950. The average annual number of live births in each State and Territory for each five-year period from 1861 to 1950 and the total number of live births in each State and Territory for each year 1946 to 1950 are given in the following table :—

LIVE BIRTHS.

Period.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T.	Aust.
ANNUAL AVERAGES.									
1861–1865 ..	15,992	24,670	2,352	6,095	653	3,090	..	..	52,852
1866–1870 ..	18,529	26,210	4,524	7,014	761	2,936	..	..	59,974
1871–1875 ..	21,308	27,272	5,856	7,279	807	3,064	..	..	65,586
1876–1880 ..	25,514	26,470	7,507	9,262	922	3,433	..	..	73,108
1881–1885 ..	31,793	28,051	9,796	11,324	1,093	4,286	..	..	86,343
1886–1890 ..	37,660	34,461	14,030	10,640	1,539	4,742	..	..	103,072
1891–1895 ..	39,513	36,171	14,573	10,619	2,048	4,959	..	..	107,883
1896–1900 ..	36,716	31,089	14,193	9,436	4,480	4,681	(*a*)	..	100,595
1901–1905 ..	37,968	30,182	13,770	8,883	6,682	5,128	31	..	102,644
1906–1910 ..	42,967	31,257	15,022	9,699	7,690	5,465	31	(*b*)	112,131
1911–1915 ..	51,631	35,205	19,100	12,092	8,844	5,807	47	43	132,769
1916–1920 ..	51,543	33,339	19,438	11,526	7,728	5,469	83	40	129,166
1921–1925 ..	54,439	35,964	20,058	11,744	8,055	5,566	68	33	135,927
1926–1930 ..	53,308	34,333	19,361	11,006	8,748	4,819	70	118	131,763
1931–1935 ..	44,964	28,380	17,480	8,646	8,061	4,547	79	145	112,302
1936–1940 ..	47,679	30,282	19,534	9,388	8,877	4,866	125	221	120,972
1941–1945 ..	56,583	38,002	23,431	12,546	10,409	5,418	113	384	146,886
1946–1950 ..	68,856	47,372	28,003	16,270	13,130	7,064	289	734	181,718
YEARLY TOTALS.									
1946 ..	67,247	46,693	27,024	15,813	12,105	6,847	132	518	176,379
1947 ..	69,398	47,366	28,358	16,317	12,874	7,140	276	655	182,384
1948 ..	67,234	46,099	27,858	15,870	12,931	6,979	280	725	177,976
1949 ..	68,812	46,873	27,748	16,042	13,511	7,110	346	819	181,261
1950 ..	71,592	49,830	29,028	17,306	14,228	7,242	411	954	190,591

(*a*) Included with South Australia prior to 1901. (*b*) Part of New South Wales prior to 1911.

3. **Crude Birth-rates.**—The oldest and most popular method of measuring fertility is to relate the number of births to the total population, thus obtaining the crude birth-rate. The crude birth-rate measures the rate per thousand persons (irrespective of age or sex) at which the population has added to its numbers by way of births during a given period.

Crude birth-rates for each five-year period from 1861 to 1950 and for each year from 1946 to 1950 for each State and Territory are set out below :—

CRUDE BIRTH-RATES.(*a*)

Period.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T.	Aust.
AVERAGE ANNUAL RATES.									
1861–1865..	42.77	43.51	43.24	43.26	35.56	33.98	..	..	42.44
1866–1870..	40.83	39.46	44.35	40.17	32.35	30.08	..	..	39.57
1871–1875..	39.12	35.65	42.64	37.15	30.84	29.69	..	..	37.01
1876–1880..	38.62	32.10	38.55	37.86	32.48	31.53	..	..	35.46
1881–1885..	38.00	31.00	37.38	38.21	34.22	35.14	..	..	35.19
1886–1890..	36.60	32.82	39.25	34.21	35.61	34.71	..	..	35.21
1891–1895..	33.15	30.94	35.09	31.43	30.78	32.88	..	..	32.38
1896–1900..	28.10	26.24	30.25	26.57	28.91	28.27	(*b*)	..	27.67
1901–1905..	26.82	25.05	26.72	24.87	30.56	28.63	6.99	..	26.35
1906–1910..	27.36	25.11	26.88	25.59	29.53	29.14	8.32	(*c*)	26.67
1911–1915..	28.74	25.39	29.15	27.94	28.62	30.01	12.87	18.89	27.78
1916–1920..	26.28	23.04	27.50	25.17	24.49	27.29	17.86	16.48	25.35
1921–1925..	24.73	22.40	25.17	22.72	22.85	25.84	18.20	9.54	23.86
1926–1930..	21.76	19.65	21.90	19.41	21.54	22.29	15.60	14.96	20.98
1931–1935..	17.28	15.60	18.48	14.89	18.36	19.95	15.99	15.77	16.94
1936–1940..	17.51	16.20	19.48	15.82	19.16	20.58	19.96	18.68	17.52
1941–1945..	19.79	19.27	22.28	20.43	21.72	22.23	11.40	26.82	20.28
1946–1950..	22.50	22.53	24.80	24.55	25.23	26.56	23.29	40.53 (*d*)	23.38
YEARLY RATES.								(*d*)	
1946 ..	22.83	23.05	24.79	24.90	24.57	27.15	12.49	32.61	23.62
1947 ..	23.25	23.06	25.65	25.25	25.60	27.70	25.34	38.75	24.06
1948 ..	22.19	22.06	24.80	24.11	25.12	26.38	22.97	39.90	23.08
1949 ..	22.10	21.92	24.18	23.80	25.35	26.08	25.68	42.85	22.91
1950 ..	22.20	22.61	24.62	24.72	25.47	25.66	27.55	46.52	23.29

(*a*) Number of births per 1,000 of mean population. (*b*) Included with South Australia prior to 1901. (*c*) Part of New South Wales prior to 1911. (*d*) Rates based on revised mean population estimates shown on p. 527 are as follows :—1946–50, 37.89 ; 1947, 38.46 ; 1948, 37.77 ; 1949, 38.65 ; 1950, 40.44.

NOTE.—The birth-rates in the table above are based on live births registered in the respective States and Territories. Some years ago a large proportion of births in respect of which the mother's usual residence was the Australian Capital Territory took place in Queanbeyan, just over the New South Wales border, but with improved hospital facilities in the Territory the movement to outside hospitals rapidly diminished and has been reversed since 1939. The following rates, based on births in respect of which the mother's usual residence is the Australian Capital Territory and on revised population figures, are a truer measure of birth-rates in the Australian Capital Territory :—

Annual Average.		Year.	
1926–1930 ..	.. 22.45	1946	. 26.00
1931–1935 ..	.. 19.53	1947	.. 25.66
1936–1940 ..	.. 19.29	1948	.. 25.99
1941–1945 ..	.. 23.06	1949	.. 27.28
1946–1950 ..	.. 27.10	1950	.. 29.63

The variations similarly caused in the birth-rates for the States and Northern Territory by referring the birth registrations to the State or Territory in which the mother was usually resident are shown by the following corrected rates for 1950:—New South Wales, 22.22 ; Victoria, 22.62 ; Queensland, 24.77. South Australia, 24.67 ; Western Australia, 25.50; Tasmania, 25.72 ; and Northern Territory, 28.15, The preceding table shows a marked reduction in the crude birth-rate since 1861. The average annual rate, which for the five years ended 1865 was 42.44, fell to 27.67 for the five years ended 1900. In the earlier years of the present century the rate fluctuated somewhat but from 1912, when 28.60 was recorded, there was an almost continuous decline to the very low figure of 16·39 in 1934. The decline in the depression years was to some extent occasioned by the postponement of marriages, and with subsequent improvement in economic conditions the rate rose. Since 1940 the rate has increased quite appreciably owing to a continued improvement in the economic welfare of the community and the war-time boom in marriages. The latter resulted in an abnormal number of first births but investigation indicates that rates for births other than first were generally slightly higher than might have been expected from pre-war experience. The improvement in the birth-rate has been maintained since the end of the war despite some falling off in marriage rates.

4. **Crude Birth-rates of Various Countries.**—The following table gives the crude birth-rates for Australia and each State in comparison with the rates for various other countries.

CRUDE BIRTH-RATES (*a*) : VARIOUS COUNTRIES.

Country.	1908–13.	1921–25.	1926–30.	1931–35.	1950.
Egypt	43.6	43.0	44.3	42.9	48.8
Mexico	(*b*)	(*c*) 31.9	36.7	43.1	45.7
Ceylon	36.9	39.2	40.4	36.9	40.2
Chile	(*d*) 39.9	39.4	41.6	33.6	32.4
Yugoslavia	(*b*)	35.0	34.2	31.8	30.2
Japan	32.9	34.6	33.5	31.6	28.3
Canada	(*b*)	27.4	24.1	21.4	27.1
Greece	(*b*)	23.0	30.2	29.5	(*e*) 26.1
Union of South Africa (*f*)	(*d*) 31.9	27.1	25.9	24.1	25.7
Argentine	37.1	32.4	30.1	26.4	(*e*) 24.9
New Zealand (*g*)	26.5	22.2	19.7	17.0	24.6
Finland	29.5	24.7	22.5	19.5	24.4
Portugal	34.6	33.2	31.2	29.0	24.2
United States of America	(*h*) 25.1	22.5	19.7	(*i*) 16.9	23.4
Rumania	43.1	37.9	35.2	32.9	(*j*) 23.4
Australia (*k*)	**27.4**	**23.9**	**21.0**	**16.9**	**23·3**
Tasmania (k)	29.6	25.8	22.3	19.9	25.7
Western Australia (k)	28.9	22.9	21.5	18.4	25.5
South Australia (k)	27.1	22.7	19.4	14.9	24.7
Queensland (k)	28.2	25.2	21.9	18.5	24.6
Victoria (k)	25.3	22.4	19.7	15.6	22.6
New South Wales (k)	28.2	24.7	21.8	17.3	22.2
Czechoslovakia	31.1	27.1	23.2	19.6	22.9
Netherlands	29.1	25.7	23.2	21.2	22.7
Eire	23.1	20.3	20.1	19.4	21.0
France	19.5	19.3	18.2	16.5	20.4
Spain	32.1	29.8	28.5	27.1	19.9
Italy	32.4	29.8	26.8	23.8	19.6
Norway	26.0	22.2	18.0	15.2	19.3
Hungary	(*d*) 34.3	29.4	26.0	22.4	(*l*) 19.1
Denmark	27.1	22.3	19.4	17.7	18.6
Switzerland	24.7	19.5	17.6	16.4	18.1
Belgium	23.4	20.4	18.6	16.8	16.5
Sweden	24.4	19.1	15.9	14.1	16.4
Great Britain and Northern Ireland	24.6	20.4	17.2	15.5	16.1
Northern Ireland	23.1	23.1	21.2	20.0	20.9
Scotland	26.2	23.0	20.0	18.2	17.7
England and Wales	24.9	19.9	16.5	15.0	15.7
Austria	(*d*) 24.9	22.2	17.6	14.4	15.6

(*a*) Number of births per 1,000 of mean population. (*b*) Not available. (*c*) 1922–25. (*d*) 1911–13. (*e*) 1949. (*f*) White population only. (*g*) Excludes Maoris. (*h*) 1915. (*i*) 1933–35. (*j*) 1947. (*k*) Excludes full-blood aboriginals. (*l*) 1948.

5. **Fertility-rates.**—The principal demographic factors affecting the level of crude birth-rates are the proportion of women of child-bearing age in the population and the proportion of such women who are married. These factors may vary considerably at different periods and for different countries, and a population with a high proportion of married women of child-bearing age will have a much higher crude birth-rate than one with a low proportion, although the fertilities of the two populations may be identical.

In order to compare fertilities, births are sometimes related to the number of women of child-bearing age or, alternatively, nuptial births are related to the number of married women of child-bearing age. Thus births are related to potential mothers, giving the fertility-rate.

The following table sets out for certain periods, commencing with 1880–82, the number of births per thousand of mean population, the number of births per thousand women of child-bearing age and the number of nuptial births per thousand married women of child-bearing age. For purposes of this table the child-bearing age has been taken to be 15–44 years inclusive, but births to mothers who were stated to be under 15 or over 44 years have been included in the compilations.

CRUDE BIRTH-RATES AND FERTILITY-RATES : AUSTRALIA.

Period.	Average Annual Rates.			Index Nos. (Base : 1880–82 = 100).		
		Fertility-rates.			Fertility-rates.	
	Crude Birth-rate. (a)	Births per 1,000 Women aged 15–44 Years.	Nuptial Births per 1,000 Married Women aged 15–44 Years.	Crude Birth-rate. (a)	Births per 1,000 Women aged 15–44 Years.	Nuptial Births per 1,000 Married Women aged 15–44 Years.
1880–82	35.3	170	321	100	100	100
1890–92	34.5	159	332	98	94	103
1900–02	27.2	117	235	77	69	73
1910–12	27.2	117	236	77	69	74
1920–22	25.0	107	197	71	63	61
1932–34	16.7	71	131	47	42	41
1946–48	23.6	104	167	67	61	52

(a) Number of births per 1,000 of mean population.

The table above shows how increasing proportions both of women of child-bearing age and of married women of child-bearing age inflate the crude birth-rate. Thus while the nuptial birth-rate for married women increased by only 27 per cent. over the period 1932–34 to 1946–48 the crude birth-rate rose by 41 per cent. owing principally to the greatly increased number of marriages during that period.

6. **Age-specific Fertility-rates for Females.**—So long as customary ages at marriage do not change drastically, the main demographic factor affecting the number of births is the age composition of the potential mothers in the population. Within the child-bearing group the fertility of women of different ages varies considerably and a clearer view of the fertility of the population can be obtained from an examination of what are known as its age-specific fertility-rates, that is, the number of births to women of specified ages per thousand women of those particular ages.

Age-specific fertility-rates are frequently expressed in age-groups as well as in single ages. The following table sets out age-specific fertility-rates for Australia over the period 1921 to 1950 in five-yearly age-groups.

AGE-SPECIFIC FERTILITY-RATES(*a*) : AUSTRALIA.

Age-group (Years).	1921.	1926.	1931.	1936.	1941.	1946.	1947.	1948.	1949.	1950.
15–19 ..	12.83	14.02	13.08	12.18	11.90	12.63	15.36	16.49	17.41	18.11
20–24 ..	65.45	60.23	53.08	50.33	59.42	73.52	80.68	79.14	82.11	84.32
25–29 ..	82.24	76.82	62.47	62.02	70.78	89.51	90.08	87.50	88.13	90.53
30–34 ..	68.50	61.90	51.25	46.33	49.72	65.03	63.76	61.26	59.30	60.34
35–39 ..	49.48	43.55	33.23	28.89	28.69	37.43	36.48	34.11	33.32	33.89
40–44 ..	21.66	17.63	13.61	10.19	9.52	11.87	11.44	10.92	10.24	10.35
45–49 ..	2.10	1.90	1.45	1.11	.80	1.03	.80	.76	.80	.73

(*a*) Number of female births per 1,000 women in each age-group.

The table above indicates that the most fertile age-group is 25-29 years. The decline in fertility between 1921 and 1936 was general but was more pronounced in the older age-groups. During the period 1936 to 1950 a rise in fertility occurred in all but the oldest age-group.

7. **Gross and Net Reproduction Rates for Females.**—A single measure of reproduction known as the gross reproduction rate is obtained by adding together the specific fertility-rates for each single age in the child-bearing group. This measure indicates the number of female children who would be born on the average to women living right through the child-bearing period, if the conditions on which the rate is based continue. The rate is unaffected by the age composition of the potential mothers, and consequently it shows more clearly than the crude birth rate the reproductive propensity of the population. It is, however, an imperfect measure of reproduction because it does not take into account the females who fail to live from birth to the end of the reproductive period. A more accurate measure of this nature is obtained by multiplying the specific fertility-rates by the number of females in the corresponding age-group of the stationary or life table population and summing the products. Allowance is thus made for the effect of mortality and the result is known as the net reproduction rate. The net reproduction rate indicates the average number of female children who would be born to women during their lifetime if they were subject at each age to the fertility and mortality rates on which the calculation is based. A constant net reproduction rate of unity indicates that the population will ultimately become stationary. If it continues greater than unity, the population will ultimately increase, if less than unity, it will ultimately decrease. The following table should be read in the light of the comment which follows it and of the index of fertility in paragraph 9 hereof.

GROSS AND NET REPRODUCTION RATES : AUSTRALIA.

Year.	Gross Reproduction Rate.	Net Reproduction Rate.	Year.	Gross Reproduction Rate.	Net Reproduction Rate.	
					(*f*)	(*g*)
1881 (*a*) ..	2.65	(*b*) 1.88	1940	1.100	1.004	1.042
1891 (*a*) ..	2.30	(*b*) 1.73	1941	1.154	1.053	1.094
1901 (*a*) ..	1.74	(*c*) 1.39	1942	1.156	1.056	1.096
1911	1.705	(*d*) 1.421	1943	1.257	1.148	1.191
1921	1.511	(*e*) 1.313	1944	1.289	1.176	1.221
1931	1.141	(*f*) 1.039	1945	1.337	1.220	1.267
1936	1.060	(*f*) 0.967	1946	1.455	1.328	1.379
1937	1.075	(*f*) 0.981	1947	1.493	1.364	1.416
1938	1.069	(*f*) 0.976	1948	1.451	..	1.376
1939	1.080	(*f*) 0.986	1949	1.457	..	1.382
			1950	1.491	..	1.364

(*a*) Approximate only. (*b*) 1881–1890 mortality experience used. (*c*) 1891–1900 mortality experience used. (*d*) 1901–1910 mortality experience used. (*e*) 1920–1922 mortality experience used. (*f*) 1932–1934 mortality experience used. (*g*) 1946–48 mortality experience used.

NOTE.—It is not strictly correct to assume, as above, that a particular age-specific fertility rate can be applied to a hyothetical group of women reaching that age, without taking account of previous fertility and marriage experiences. Reproduction rates are, therefore, somewhat unreliable when birth and marriage rates have been changing. The indexes of marriage fertility shown on the next page are also of doubtful reliability in similar circumstances.

Since 1881 there has been a substantial downward trend in both rates, but the gross rate has fallen considerably more than the net, showing that the decline in fertility has been offset to some extent by a decline in mortality. The net reproduction rate was below unity over the period 1932 to 1939, and if the low level of those years were to continue, ultimate population decline would be certain. The progressive rise in both gross and net reproduction rates from 1939 to 1947 has been due largely to abnormally high marriage rates. Fluctuations in marriage rates affect both gross and net reproduction rates substantially. When fluctuations in marriage rates are transient, reproduction rates calculated as above are not valid as indicators of relative fertility nor of the extent to which population will replace itself. The fertility of marriages is measured in paragraph 9 below.

8. **Gross and Net Reproduction Rates of Various Countries.**—In the following table a comparison is given of the gross and net reproduction rates recorded for various countries.

GROSS AND NET REPRODUCTION RATES : VARIOUS COUNTRIES.

Country.	Period.	Reproduction Rate.		Country.	Period.	Reproduction Rate.	
		Gross.	Net.			Gross.	Net.
Canada ..	1948	1.67	(*a*)	France ..	1947	1.46	1.31
New Zealand(*b*)	1949	1.62	1.51	Denmark ..	1947	1.40	1.27
United States of America(*c*) ..	1948	1.54	1.46	Switzerland ..	1946	1.29	1.16
Netherlands ..	1949	1.56	1.43	Sweden ..	1947	1.21	1.13
Finland ..	1948	1.67	1.40	Portugal ..	1949	1.55	1.13
Eire	1945–47	1.63	1.38	Norway ..	1948	1.23	1.13
Australia ..	**1950**	**1.49**	**1.36**	England and Wales ..	1948	1.16	1.07
Scotland ..	1947	1.50	1.35	Belgium ..	1948	1.19	1.00

(*a*) Not available. (*b*) Excludes Maoris. (*c*) White population only.

In comparing the reproduction rates of the countries shown above allowance should be made for any differences in years as the rates for any one country from year to year are affected by variations in the incidence of marriage.

9. **Fertility of Marriages.**—In issues of the Official Year Book prior to No. 35 estimates of the fertility of marriages were published. These were calculated by relating the births of one five-yearly period to the marriages in the preceding five years (*see* Official Year Book No. 35, p. 329). Since the publication of that issue, an improved method has been formulated for measuring current marriage fertility by relating nuptial confinements in each year to the marriages from which they could have resulted. Confinements of women of a certain number of years duration of marriage are related to the number of marriages taking place that number of years previously. The table below sets out this index of current fertility per marriage in respect of confinements in the individual years shown.

FERTILITY OF MARRIAGES : AUSTRALIA.

Year.	Nuptial Confinements per Marriage.	Year.	Nuptial Confinements per Marriage.	Year.	Nuptial Confinements per Marriage.
1936.. ..	2.28	1941.. ..	2.19	1946.. ..	2.55
1937.. ..	2.27	1942.. ..	2.12	1947.. ..	2.55
1938.. ..	2.22	1943.. ..	2.21	1948.. ..	2.44
1939.. ..	2.20	1944.. ..	2.28	1949.. ..	2.45
1940.. ..	2.18	1945.. ..	2.36	1950.. ..	2.56

NOTE.—*Se* Note at foot of p. 587.

The figure for a particular year gives the estimated number of children which a marriage would produce according to the fertility conditions of that year. It will be noted that there was an almost continuous decline to 1942, but a pronounced increase from 1943 to 1946. Comparing this index with the net reproduction rate it is evident that the rise in the latter since 1935 has been caused by a rise in the marriage rate, due firstly to the postponed depression marriages, and secondly to war-time marriages, and only in the last six years to any increase in the fertility of marriages. The figures for 1949 and 1950 present a somewhat inflated index as many of the births which have been used to calculate the index relate to marriages of immigrants which took place overseas and are consequently not included in Australian marriage records.

10. **Masculinity of Live Births.**—The masculinity of live births, i.e., the number of males born for every 100 female births, has remained fairly stable for Australia at about 105. But when the number of births for which masculinity is being calculated is small (for example, State totals), considerable variation is shown. For 1950 the figures ranged from 98.55 in the Northern Territory to 107.51 in Tasmania. The averages for the ten years 1941–50 were as follows :—New South Wales, 105.49 ; Victoria, 105.47 ; Queensland, 105.49 ; South Australia, 105.78 ; Western Australia, 104.27 ; Tasmania, 104.45 ; Australia, 105.38. The following table shows the figures for Australia for each ten-year period from 1901 to 1950 and for each year 1947 to 1950 :—

MASCULINITY(a) OF LIVE BIRTHS REGISTERED : AUSTRALIA.

Particulars.	1901–10.	1911–20.	1921–30.	1931–40.	1941–50.	1947.	1948.	1949.	1950.
Total Births ..	105.22	105.27	105.55	105.12	105.38	105.93	105.36	104.78	105.46
Ex-nuptial Births	104.08	105.25	105.16	105.36	105.34	101.75	103.55	101.20	105.38

(a) Number of males born for every 100 female births.

11. **Ex-nuptial Live Births.**—(i) *General.* Since 1901 the highest proportion of ex-nuptial births recorded in any one year was in 1905 when there were 6,545 ex-nuptial births representing 6.24 per cent. of total births. Since then the proportion has declined steadily. The largest number of ex-nuptial births was recorded in 1946 when 7,613 were registered, but this number represented only 4.32 per cent. of total births. The lowest proportion was 3.78 per cent. in 1940.

The variations in the proportions of ex-nuptial births as between the individual States and Territories for 1950 are shown below. Corresponding figures for 1949 may be obtained from *Demography Bulletin* No. 67.

EX-NUPTIAL LIVE BIRTHS : NUMBER AND PROPORTION, 1950.

Particulars.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T.	Aust.
Number ..	2,914	1,617	1,428	476	525	283	54	27	7,324
Proportion of Total Births	% 4.07	% 3.25	% 4.92	% 2.75	% 3.69	% 3.91	% 13.14	% 2.83	% 3.84

The number and proportion of ex-nuptial births at intervals from 1901 to 1950 are as follows :—

EX-NUPTIAL LIVE BIRTHS : NUMBER AND PROPORTION, AUSTRALIA.

Particulars.	Annual Average.					1946.	1947.	1948.	1949.	1950.
	1901–10.	1911–20.	1921–30.	1931–40.	1941–50.					
Number of Ex-nuptial Births ..	6,498	6,836	6,238	5,133	6,780	7,613	7,263	7,173	7,372	7,324
Proportion of Total Births	% 6.05	% 5.22	% 4.66	% 4.40	% 4.13	% 4.32	% 3.98	% 4.03	% 4.07	% 3.84

It is, of course, possible that the number of ex-nuptial births is somewhat understated owing to diffidence in proclaiming the fact of ex-nuptiality.

(ii) *Rate of Ex-nuptiality.* A further comparison is obtained by calculating the number of ex-nuptial births per thousand of the single, widowed and divorced female population between the ages of 15 and 45 years. On this basis the number of ex-nuptial births per 1,000 unmarried women of ages 15 to 45 has been found to be as follows :— 1880–82, 14.49; 1890–92, 15.93; 1900–02, 13.30; 1910–12, 12.53; 1920–22, 10.50; 1932–34, 6.96; and 1946–48, 11.56.

(iii) *Comparison of Rates.* The following table, showing the relative proportions of ex-nuptial and nuptial births to the total population, discloses a much greater proportional reduction in the ex-nuptial birth-rate than in the nuptial rate :—

CRUDE EX-NUPTIAL, NUPTIAL, AND TOTAL BIRTH-RATES(a) : AUSTRALIA.

Birth-rate.	Annual Average.					1947.	1948.	1949.	1950.
	1901–10.	1911–20.	1921–30.	1931–40.	1941–50.				
Ex-nuptial	1.60	1.39	1.04	0.76	0.90	0.96	0.93	0.93	0.90
Nuptial ..	24.91	25.18	21.40	16.47	20.98	23.10	22.15	21.98	22.39
Total ..	26.51	26.57	22.44	17.23	21.88	24.06	23.08	22.91	23.29

(a) Number of births per 1,000 of mean population.

12. **Legitimations.**—In the several States Acts have been passed to legitimize children born before the marriage of their parents, provided that no legal impediment to the marriage existed at the time of birth. On registration in accordance with the provisions of the Legitimation Acts, any child who comes within the scope of their purposes, born before or after the passing thereof, is deemed to be legitimate from birth by the post-natal union of its parents, and entitled to the status of offspring born in wedlock. During 1949 and 1950 the numbers of children legitimized in Australia were 867 and 922 respectively, compared with 883 in 1939.

13. **Multiple Births.**—Among the total number of 190,591 live births registered in Australia in 1950 there were 186,198 single births, 4,329 twins, 57 triplets and 7 quadruplets. The number of cases of twins was 2,217, triplets 20 and of quadruplets 2, there being 105 still-born twins, 3 still-born triplets and 1 still-born quadruplet. The total number of mothers was, therefore, 188,437, the proportion of mothers of twins being one in every 85, of mothers of triplets one in every 9,422, and of mothers of all multiple births one in every 84 mothers. Multiple births occurred in 1.19 per cent. of confinements.

The proportion of multiple births to total births does not vary greatly from year to year.

MULTIPLE BIRTHS : AUSTRALIA.

Particulars.	Annual Average.				1947.	1948.	1949.	1950.
	1911–20.	1921–30.	1931–40.	1941–50.				
Mothers of Multiple Births ..	1,387	1,420	1,220	1,844	2,030	1,938	2,037	2,239
	%	%	%	%	%	%	%	%
Proportion of Total Mothers	1.06	1.07	1.06	1.13	1.12	1.10	1.14	1.19

14. **Ages of Parents.**—The relative ages of the parents of children registered in 1949 and 1950 have been tabulated separately for male and female births, multiple births being distinguished from single births. For total births and for multiple births the relative single ages of parents are shown in *Demography Bulletins* Nos. 67 and 68. In the present work the exigencies of space allow only the insertion of a table for 1950 showing, in respect of all confinements, the relative ages of parents in groups of five years.

CONFINEMENTS: RELATIVE AGES OF PARENTS, AUSTRALIA, 1950.

Age of Father (Years), and Type of Birth.		Total.	Age of Mother (Years).								
			Under 15.	15–19.	20–24.	25–29.	30–34.	35–39.	40–44.	45 and over.	Not Stated
Under 20	Single	1,019	1	752	255	11	..	..	..	..	..
	Twins	7	..	6	1	..	..	..	..	..	..
20–24 ..	Single	26,191	3	5,013	17,913	3,004	219	36	3	..	..
	Twins	227	..	32	155	34	4	1	1	..	..
	Triplets	3	..	..	1	2	..	..	..	..	..
25–29 ..	Single	56,920	1	1,974	23,992	26,850	3,656	414	30	3	..
	Twins	595	..	17	227	299	49	2	1	..	..
	Triplets	1	..	..	..	1	..	..	..	..	..
30–34	Single	43,331	..	346	6,408	19,394	14,674	2,339	166	4	..
	Twins	557	..	1	53	247	221	33	2	..	..
	Triplets	7	..	..	1	2	3	1	..	..	..
	Quadruplets	1	..	..	..	1	..	..	..	..	..
35–39 ..	Single	29,537	..	115	1,717	6,867	11,625	8,421	784	8	..
	Twins	437	..	..	18	87	175	141	16	..	..
	Triplets	5	..	..	..	..	3	2	..	..	..
40–44 ..	Single	14,389	..	27	437	1,871	3,979	5,762	2,259	54	..
	Twins	215	..	1	2	20	61	103	28	..	..
	Triplets	3	..	..	..	..	1	2	..	..	..
45–49	Single	5,392	..	5	123	504	1,124	2,001	1,440	195	..
	Twins	77	..	..	1	5	14	36	21	..	..
	Triplets	1	..	..	..	..	..	1	..	..	..
	Quadruplets	1	..	..	..	..	..	1	..	..	..
50–54 ..	Single	1,571	..	4	39	136	303	567	476	46	..
	Twins	28	..	..	..	4	4	7	3	..	..
	Triplets	..	..	..	..	..	..	..	..	..	..
55–59 ..	Single	447	..	2	10	22	95	160	135	23	..
	Twins	4	..	..	..	..	1	3	..	..	..
60–64 ..	Single	155	..	..	3	12	26	55	50	9	..
	Twins	5	..	..	1	..	1	1	2	..	..
65 and over	Single	62	..	1	2	6	11	24	14	4	..
	Twins	3	..	..	..	..	..	3	..	..	..
Not Stated	Single	1	..	1	..	..	..	..	..	..	..
Mothers of Nuptial Children	Single	179,015	5	8,240	50,899	58,677	35,712	19,779	5,357	346	..
	Twins	2,145	..	57	458	696	530	330	74	..	..
	Triplets	20	..	..	2	5	7	6	..	..	..
	Quadruplets	2	..	..	..	1	..	1	..	..	..
	Total	181,182	5	8,297	51,359	59,379	36,249	20,116	5,431	346	..
Mothers of Ex-nuptial Children	Single	7,183	43	1,579	2,297	1,490	925	602	209	32	6
	Twins	72	..	7	21	19	14	9	2	..	..
	Total	7,255	43	1,586	2,318	1,509	939	611	211	32	6
Total Mothers	Single	186,198	48	9,819	53,196	60,167	36,637	20,381	5,566	378	6
	Twins	2,217	..	64	479	715	544	339	76	..	..
	Triplets	20	..	..	2	5	7	6	..	..	..
	Quadruplets	2	..	..	..	1	..	1	..	..	..
Total ..		188,437	48	9,883	53,677	60,888	37,188	20,727	5,642	378	6

15. **Birthplaces of Parents.**—Tables showing birthplaces of parents of children whose births were registered during 1949 and 1950 appear in *Demography Bulletins* Nos. 67 and 68 respectively.

16. **Occupation of Fathers.**—Tables showing occupations of the fathers of all nuptial children registered in 1949 and 1950 appear in *Demography Bulletins* Nos. 67 and 68 respectively.

17. **Age, Duration of Marriage and Issue of Mothers.**—(i) *General.* The total number of nuptial confinements resulting in live births in 1950 was 181,182, comprising 179,015 single births, 2,145 cases of twins, 20 cases of triplets and 2 cases of quadruplets. The tables relating to previous issue exclude the issue of former marriages and still-born

children. On the other hand, they include children by the same father which were born to the mother prior to the marriage. Children born at the present confinement are included in the total issue shown.

The tables below are shown in summarized form, more complete details for 1949 being given in *Demography Bulletin* No. 67 and for 1950 in *Demography Bulletin* No. 68.

(ii) *Duration of Marriage and Issue of Mothers.* The following table shows that in 1950 the duration of marriage of mothers of nuptial children ranged from less than one year up to 33 years, and that the average family increased fairly regularly with the duration of marriage. The average issue of married mothers who bore children in 1950 was 2.39 compared with 2.37 in 1949, 2.35 in 1948, 2.31 in 1947 and 2.36 in 1946.

NUPTIAL CONFINEMENTS : DURATION OF MARRIAGE AND ISSUE OF MOTHERS, AUSTRALIA, 1950.

Duration of Marriage. (Years.)	Total Married Mothers.	Total Issue.	Average Issue.
0–1 ..	23,907	24,348	1.02
1–2 ..	23,652	28,317	1.20
2–3 ..	21,456	35,842	1.67
3–4 ..	20,041	40,329	2.01
4–5 ..	16,138	36,876	2.29
5–6 ..	12,282	30,855	2.51
6–7 ..	10,180	27,674	2.72
7–8 ..	9,926	29,062	2.93
8–9 ..	9,279	29,271	3.15
9–10 ..	7,288	24,697	3.39
10–11 ..	6,042	22,206	3.68
11–12 ..	4,272	16,893	3.95
12–13 ..	3,542	15,002	4.24
13–14 ..	2,947	13,273	4.50
14–15 ..	2,406	11,458	4.76
15–16 ..	1,866	9,406	5.04
16–17 ..	1,458	7,919	5.43
17–18 ..	1,133	6,447	5.69
18–19 ..	878	5,281	6.01
19–20 ..	678	4,398	6.49
20–21 ..	594	3,972	6.69
21–22 ..	404	2,806	6.95
22–23 ..	312	2,320	7.44
23–24 ..	214	1,661	7.76
24–25 ..	119	921	7.74
25–26 ..	77	636	8.26
26–27 ..	50	383	7.66
27–28 ..	25	188	7.52
28–29 ..	13	109	8.38
29–30 ..	2	16	8.00
30–31 ..	..	..	..
31–32 ..	..	..	..
32–33 ..	1	8	8.00
Total ..	181,182	432,574	2.39

(iii) *Age and Average Issue of Mothers.* The following table shows the average number of children born to mothers of different ages. In the younger ages there is, naturally, little difference in the average number of children to each mother from year to year, but with the increase of the age of the mother the number of issue has fallen in comparison with past years. The average issue of mothers of all ages recorded for 1950 (namely 2.39) is 26.5 per cent. below the average of 3.25 for the years 1911–20.

AGE AND AVERAGE ISSUE OF MOTHERS : AUSTRALIA.

Period.	Age of Mother (Years).							
	Under 20.	20–24.	25–29.	30–34.	35–39.	40–44.	45 and Over.	All Ages.
1911–20 ..	1.21	1.75	2.61	3.74	5.11	6.69	8.16	3.25
1921–30 ..	1.20	1.71	2.46	3.48	4.80	6.27	7.74	3.04
1931–40 ..	1.20	1.68	2.30	3.19	4.41	5.89	7.40	2.71
1941–50 ..	1.17	1.56	2.15	2.85	3.67	4.79	6.19	2.37
1941 ..	1.20	1.59	2.11	2.86	3.91	5.35	7.01	2.40
1942 ..	1.18	1.57	2.12	2.86	3.85	5.26	6.82	2.39
1943 ..	1.18	1.53	2.09	2.81	3.75	5.07	6.86	2.35
1944 ..	1.17	1.56	2.15	2.84	3.69	4.89	6.18	2.42
1945 ..	1.16	1.55	2.15	2.84	3.63	4.82	6.18	2.42
1946 ..	1.15	1.54	2.13	2.81	3.60	4.60	6.04	2.36
1947 ..	1.14	1.50	2.11	2.81	3.61	4.62	6.03	2.31
1948 ..	1.17	1.56	2.20	2.87	3.61	4.56	5.49	2.35
1949 ..	1.19	1.59	2.21	2.93	3.64	4.54	5.89	2.37
1950 ..	1.20	1.63	2.24	2.93	3.65	4.52	5.51	2.39

(iv) *Previous Issue of Mothers, Various Ages.* A classification of mothers by age group and previous issue is given for 1950 in the following table. Corresponding figures for 1949 appear in *Demography Bulletin* No. 67.

NUPTIAL CONFINEMENTS : AGE OF MOTHER AND PREVIOUS ISSUE, AUSTRALIA, 1950.

Previous Issue.	Age of Mother (Years.)							Total Married Mothers.
	Under 20.	20–24.	25–29.	30–34.	35–39.	40–44.	45 and Over.	
0	6,838	28,064	17,479	6,216	2,793	658	33	62,081
1	1,335	16,710	22,383	10,639	4,049	770	35	55,921
2	115	5,127	12,196	9,147	4,475	939	42	32,041
3	14	1,183	4,599	5,262	3,511	844	47	15,460
4	..	220	1,724	2,470	2,018	633	37	7,102
5	..	43	661	1,259	1,227	438	31	3,659
6	..	8	224	643	774	343	32	2,024
7	..	4	86	327	503	260	30	1,210
8	..	..	17	170	339	171	14	711
9	..	..	7	67	192	145	14	425
10	..	..	2	32	116	89	12	251
11	..	..	1	10	54	56	8	129
12	..	..	..	3	41	40	4	88
13	..	..	..	1	16	26	..	43
14	..	..	..	2	3	9	5	19
15	..	..	..	..	4	5	1	10
16	..	..	..	..	..	2	1	3
17	..	..	..	1	1	2	..	4
18	..	..	..	..	..	1	..	1
Total Married Mothers	8,302	51,359	59,379	36,249	20,116	5,431	346	181,182

(v) *Previous Issue of Mothers of Twins, Triplets and Quadruplets.* Figures regarding the previous issue of married mothers of twins in 1950 show that 577 mothers had no previous issue either living or deceased, 653 had one child previously, 450 had two previous issue, 209 three, 125 four, 49 five, 39 six, 13 seven, 15 eight, 6 nine, 3 ten, 1 eleven, 3 twelve and 2 thirteen.

Of the 20 cases of nuptial triplets registered during 1950, 7 mothers had no previous issue, 2 had one, 4 had two, 4 had three, 1 had four, 1 had six and 1 had eight previous issue. Of the two cases of quadruplets in 1950, 1 mother had one previous child and 1 had three previous children.

18. **Nuptial First Births.**—(i) *Duration of Marriage.* The following table shows the interval between marriage and first birth for 1911–20, 1921–30, 1931–40, 1941–50, 1948, 1949 and 1950. In cases of twins and triplets, the first live born child only is enumerated.

FIRST BIRTHS: DURATION OF MARRIAGE, AUSTRALIA.

Duration of Marriage.	Annual Average.				1948.	1949.	1950.
	1911–20.	1921–30.	1931–40.	1941–50.			
			NUMBER OF FIRST BIRTHS.				
Under 1 month ..	465	365	301	218	241	213	248
1 month ..	535	496	412	285	312	298	296
2 months ..	760	719	626	419	400	470	479
3 ,, ..	996	1,013	967	646	757	701	727
4 ,, ..	1,227	1,333	1,367	986	1,116	1,084	1,144
5 ,, ..	1,551	1,809	2,008	1,583	1,977	1,820	1,932
6 ,, ..	1,993	2,397	2,812	2,478	2,989	2,874	2,884
7 ,, ..	1,785	2,219	2,184	2,207	2,632	2,353	2,312
8 ,, ..	1,562	1,530	1,417	2,104	2,366	2,087	2,165
9 ,, ..	3,517	3,253	2,668	4,298	4,779	4,677	4,509
10 ,, ..	2,877	2,907	2,202	3,447	4,020	3,902	3,811
11 ,, ..	2,018	2,152	1,836	2,896	3,311	3,255	3,240
Total under 1 year	19,286	20,193	18,800	21,567	24,900	23,734	23,747
1–2 years ..	8,563	10,133	10,595	17,762	19,277	19,425	19,302
2–3 ,, ..	2,626	3,369	4,319	8,028	6,792	7,750	8,271
3–4 ,, ..	1,230	1,743	2,214	4,361	3,311	3,448	4,198
4–5 ,, ..	700	941	1,205	2,569	2,224	1,885	2,132
5–10 ,, ..	980	1,446	1,766	3,936	4,638	3,991	3,676
10–15 ,, ..	168	240	289	501	564	601	643
15–20 ,, ..	34	47	48	80	81	71	95
20 years and over ..	8	8	7	14	12	22	17
Total	33,595	38,120	39,243	58,818	61,799	60,927	62,081
			PROPORTION OF TOTAL FIRST BIRTHS.				
	%	%	%	%	%	%	%
Under 1 month ..	1.39	0.96	0.77	0.37	0.39	0.35	0.40
1 month ..	1.59	1.30	1.05	0.49	0.50	0.49	0.48
2 months ..	2.26	1.89	1.59	0.71	0.65	0.77	0.77
3 ,, ..	2.96	2.66	2.46	1.10	1.22	1.15	1.17
4 ,, ..	3.65	3.50	3.48	1.68	1.81	1.78	1.84
5 ,, ..	4.62	4.75	5.12	2.69	3.20	2.99	3.11
6 ,, ..	5.93	6.29	7.16	4.21	4.84	4.72	4.65
7 ,, ..	5.32	5.82	5.57	3.75	4.26	3.86	3.72
8 ,, ..	4.65	4.01	3.61	3.58	3.83	3.42	3.49
9 ,, ..	10.47	8.53	6.80	7.31	7.73	7.68	7.26
10 ,, ..	8.56	7.63	5.61	5.86	6.50	6.40	6.14
11 ,, ..	6.01	5.64	4.68	4.92	5.36	5.34	5.22
Total under 1 year	57.41	52.98	47.90	36.67	40.29	38.95	38.25
1–2 years ..	25.49	26.58	27.00	30.20	31.19	31.88	31.09
2–3 ,, ..	7.82	8.84	11.01	13.65	10.99	12.72	13.32
3–4 ,, ..	3.66	4.57	5.64	7.41	5.36	5.66	6.76
4–5 ,, ..	2.08	2.47	3.07	4.37	3.60	3.09	3.44
5–10 ,, ..	2.92	3.79	4.50	6.69	7.51	6.55	5.92
10–15 ,, ..	0.50	0.63	0.74	0.85	0.91	0.99	1.04
15–20 ,, ..	0.10	0.12	0.12	0.14	0.13	0.12	0.15
20 years and over ..	0.02	0.02	0.02	0.02	0.02	0.04	0.03
Total	100.00	100.00	100.00	100.00	100.00	100.00	100.00

The masculinity of nuptial first births in 1950 was 105.28 compared with 105.46 for total births.

(ii) *Age of Mother and Duration of Marriage.* Tabulations showing single ages of mothers of nuptial first-born children in conjunction with duration of marriage are given for 1948, 1949 and 1950 in *Demography Bulletins* Nos. 66 to 68.

(iii) *First Births Occurring within Nine Months of Marriage.* The following table shows for 1948, 1949 and 1950 the number of children born less than nine months after marriage to mothers in each age-group. For purposes of comparison details of births of ex-nuptial children and of all first-born children are also shown together with the number of brides in each year within the age-groups used. The analysis of the figures shown in the table is intended to indicate the extent of ante-nuptial conception but the data are subject to the limitations that premature births which are not the result of ante-nuptial conception are included among the births which occurred less than nine months after marriage and the proportion of first births among ex-nuptial births is unknown. Subject to these limitations the total of nuptial births occurring less than nine months after marriage and all ex-nuptial births may be taken as indicating the extent of ante-nuptial conception. The difference from the true figures is probably not significant, especially in the lower age-groups.

Three-fifths of first births to married mothers under 20 years of age are conceived before marriage whilst at ages 20–24 years the proportion is one-fifth and at ages 25–29 years about one-tenth. If all ex-nuptial births are included as first births then almost 70 per cent. of first births to mothers aged under 20 years are conceived out of wedlock. In the age-group 20–24 years the proportion is over 25 per cent. and in the age-group 25–29 years over 16 per cent.

FIRST BIRTHS: AGE OF MOTHER AND DURATION OF MARRIAGE, AUSTRALIA.

Particulars.		Age-group (Years).(a)							Total.
		Under 20.	20–24.	25–29.	30–34.	35–39.	40–44.	45 and over.	
1948.									
1. Nuptial births occurring less than 9 months after marriage ..	No.	4,105	6,057	1,691	618	248	68	3	12,790
2. Total nuptial first births	No.	6,727	27,702	16,982	6,929	2,776	646	37	61,799
3. Ex-nuptial births ..	No.	1,617	2,351	1,436	930	568	200	19	(b)7,121
4. Total brides ..	No.	13,200	35,428	12,827	5,431	3,138	1,843	3,035	74,902
Proportion of 1 to 2 ..	%	61.02	21.86	9.96	8.92	8.93	10.53	8.11	20.70
Proportion of 1 to 4 ..	%	31.10	17.10	13.18	11.38	7.90	3.69	0.10	17.08
Proportion of 1 + 3 to 2 + 3	%	68.58	27.98	16.98	19.70	24.40	31.68	39.29	28.81
1949.									
1. Nuptial births occurring less than 9 months after marriage ..	No.	4,060	5,530	1,532	498	219	60	1	11,900
2. Total nuptial first births	No.	6,678	27,737	16,943	6,208	2,674	653	34	60,927
3. Ex-nuptial births ..	No.	1,679	2,428	1,479	933	569	182	14	(c)7,284
4. Total Brides ..	No.	13,391	33,966	12,351	5,095	3,187	1,873	3,136	72,999
Proportion of 1 to 2 ..	%	60.80	19.94	9.04	8.02	8.19	9.19	2.94	19.53
Proportion of 1 to 4 ..	%	30.32	16.28	12.40	9.77	6.87	3.20	0.03	16.30
Proportion of 1 + 3 to 2 + 3	%	68.67	26.38	16.34	20.04	24.30	28.98	31.25	28.12
1950.									
1. Nuptial births occurring less than 9 months after marriage ..	No.	4,247	5,520	1,569	508	272	71	..	12,187
2. Total nuptial first births	No.	6,838	28,064	17,479	6,216	2,793	658	33	62,081
3. Ex-nuptial births ..	No.	1,629	2,318	1,509	939	611	211	32	(d)7,249
4. Total Brides ..	No.	13,909	35,087	12,464	5,248	3,428	2,085	3,378	75,599
Proportion of 1 to 2 ..	%	62.11	19.67	8.98	8.17	9.74	10.79	..	19.63
Proportion of 1 to 4 ..	%	30.53	15.73	12.59	9.68	7.93	3.41	..	16.12
Proportion of 1 + 3 to 2 + 3	%	69.40	25.80	16.21	20.22	25.94	32.45	49.23	28.03
Proportion of 1 + 3 to 2 + 3—									
1911–20 ..	%	81.22	49.37	28.37	25.50	30.89	37.01	49.49	43.70
1921–30 ..	%	80.08	45.59	23.45	22.22	29.78	38.18	49.65	40.76
1931–40 ..	%	80.06	44.75	20.49	19.41	27.78	38.43	55.57	39.32
1941–50 ..	%	69.12	27.30	14.94	16.74	22.54	29.58	44.95	26.92
1946 ..	%	69.33	26.64	14.43	15.93	21.93	28.97	53.57	25.73
1947 ..	%	68.62	27.52	15.71	17.23	22.33	25.82	25.64	27.29
1948 ..	%	68.58	27.98	16.98	19.70	24.40	31.68	39.29	28.81
1949 ..	%	68.67	26.38	16.34	20.04	24.30	28.98	31.25	28.12
1950 ..	%	69.40	25.80	16.21	20.22	25.94	32.45	49.23	28.03

(a) Age, in years, of mothers at birth of first child, age of brides at marriage. (b) Excludes 2 births, age of mother not stated. (c) Excludes 5 births, age of mother not stated. (d) Excludes 6 births, age of mother not stated.

NOTE.—In cases of multiple first births, only one child is included.

19. **Still-births.**—Registration of still-births is not compulsory in all Australian States. It has been compulsory in Western Australia since 14th January, 1908; in the Australian Capital Territory since 1st January, 1930; in New South Wales since 1st April, 1935, and in South Australia since 1st May, 1937. In Victoria, Queensland and Tasmania registration is not enforced but some information is obtained by notification of still-births for various purposes. Because registration is not compulsory in all States detailed statistics of still-births for Australia as a whole cannot be compiled.

The number of still-births in each State and Territory, as recorded by the means outlined above, during the last four years are as shown in the following table :—

STILL-BIRTHS.

State or Territory.	Number.				Per 1,000 of all Births (Live and Still).			
	1947.	1948.	1949.	1950.	1947.	1948.	1948.	1950.
New South Wales ..	1,466	1,326	1,279	1,406	20.69	19.34	18.25	19.26
Victoria	951	902	907	963	19.68	19.19	18.98	18.96
Queensland	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)
South Australia ..	387	374	338	325	23.17	23.02	20.63	18.43
Western Australia ..	304	266	268	240	23.07	20.16	19.45	16.59
Tasmania	187	179	159	138	25.52	25.01	21.87	18.70
Northern Territory ..	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)
Aust. Cap. Territory	10	17	14	11	15.04	22.91	16.81	11.40

(a) Not available.

§ 3. Mortality.

1. **Number of Deaths.**—(i) *Year*, 1950. The following table shows the number of deaths, male and female, registered in each State during the year :—

DEATHS, 1950.

Sex.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T.	Aust.
Males ..	17,565	11,781	6,160	3,721	3,022	1,318	83	70	43,720
Females ..	13,400	10,560	4,239	3,019	2,036	1,148	13	52	34,467
Persons ..	30,965	22,341	10,399	6,740	5,058	2,466	96	122	78,187

(ii) *Years* 1861 *to* 1950. A summary of the total number of deaths in each State and Territory since 1861 is given in the following table :—

DEATHS.

Period.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T.	Aust.
ANNUAL AVERAGES.									
1861–1865	6,312	9,890	1,150	2,168	279	1,391	..	..	21,190
1866–1870	7,293	11,027	1,863	2,593	350	1,390	..	..	24,516
1871–1875	8,182	11,952	2,574	3,095	414	1,609	..	..	27,826
1876–1880	10,651	12,562	3,457	3,605	401	1,799	..	..	32,475
1881–1885	13,221	13,362	5,146	4,323	544	1,958	..	..	38,554
1886–1890	14,291	16,929	5,608	3,873	666	2,078	..	..	43,445
1891–1895	15,360	16,411	5,316	4,109	1,086	2,025	..	..	44,307
1896–1900	15,556	16,265	5,841	4,235	2,389	2,063	(*a*)	..	46,349
1901–1905	15,900	15,349	5,862	3,913	2,731	1,932	70	..	45,757
1906–1910	15,882	14,942	5,529	3,848	2,867	2,020	77	(*b*)	45,165
1911–1915	18,802	15,921	6,907	4,495	3,045	2,010	75	12	51,267
1916–1920	20,776	16,485	7,605	4,878	3,133	1,971	81	10	54,939
1921–1925	20,379	16,176	7,412	4,880	3,231	2,090	57	9	54,234
1926–1930	22,677	16,698	8,007	5,008	3,617	2,040	71	42	58,160
1931–1935	22,591	17,680	8,147	5,063	3,876	2,194	67	35	59,653
1936–1940(*c*	25,735	19,361	9,107	5,540	4,270	2,342	73	54	66,482
1941–1945(*c*	27,807	20,964	9,715	6,303	4,724	2,488	64	71	72,136
1946–1950(*c*	29,552	21,827	10,357	6,507	4,802	2,459	76	103	75,683
YEARLY TOTALS.									
1946(*c*) ..	28,579	21,534	10,648	6,461	4,753	2,549	55	82	74,661
1947(*c*) ..	28,449	21,442	10,116	6,215	4,723	2,363	65	95	73,468
1948 ..	30,403	21,825	10,462	6,748	4,685	2,528	73	115	76.839
1949 ..	29,364	21,991	10,161	6,373	4,790	2,389	92	100	75,260
1950 ..	30,965	22,341	10,399	6,740	5,058	2,466	96	122	78.187

(*a*) Northern Territory figures included with South Australia prior to 1901. (*b*) Part of New South Wales prior to 1911. (*c*) Excludes deaths of defence personnel and of internees and prisoners of war from overseas for the period September, 1939 to June, 1947.

2. **Crude Death-rates.**—The commonest method of measuring the mortality rate is to relate the number of deaths for a given period to the mean population for that period, thus obtaining the crude death-rate. This rate for a given period measures the numbers per thousand of population by which the population is depleted through deaths during that period. Crude death-rates for each State and Territory from 1861 to 1950 are shown in the following table.

CRUDE DEATH-RATES.(*a*)

Period.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T.	Aust.
AVERAGE ANNUAL RATES.									
1861–1865 ..	16.88	17.48	20.60	15.39	15.15	15.30	..	..	17.04
1866–1870 ..	16.18	16.68	18.51	14.90	14.90	14.24	..	..	16.26
1871–1875 ..	14.93	15.58	18.33	15.71	15.90	15.58	..	..	15.62
1876–1880 ..	16.18	15.26	17.84	14.78	14.12	16.54	..	..	15.80
1881–1885 ..	15.77	14.76	19.36	14.60	16.96	16.03	..	..	15.69
1886–1890 ..	13.91	16.10	15.72	12.46	15.63	15.22	..	..	14.85
1891–1895 ..	12.91	13.85	12.81	12.17	16.29	13.44	..	..	13.32
1896–1900 ..	11.91	13.73	12.45	11.93	15.59	12.46	(*b*)	..	12.75
1901–1905 ..	11.25	12.74	11.38	10.96	12.58	10.79	15.69	..	11.76
1906–1910 ..	10.11	12.01	9.90	10.16	11.03	10.77	20.99	(*c*)	10.75
1911–1915 ..	10.47	11.49	10.55	10.37	9.87	10.39	20.38	5.21	10.73
1916–1920 ..	10.58	11.38	10.75	10.65	9.91	9.83	17.41	4.26	10.77
1921–1925 ..	9.26	10.08	9.31	9.45	9.19	9.70	15.00	2.61	9.53
1926–1930 ..	9.26	9.56	9.06	8.83	8.90	9.44	15.84	5.49	9.26
1931–1935 ..	8.68	9.72	8.61	8.72	8.82	9.62	13.45	3.81	9.00
1936–1940(*d*) ..	9.45	10.36	9.08	9.33	9.21	9.91	11.76	4.50	9.62
1941–1945(*d*) ..	9.73	10.63	9.24	10.27	9.86	10.21	6.51	4.98	9.96
1946–1950(*d*) ..	9.66	10.38	9.17	9.82	9.23	9.25	6.14	(*e*) 5.67	9.74
YEARLY RATES.									
1946(*d*) ..	9.70	10.63	9.77	10.17	9.65	10.11	5.20	5.16	10.00
1947(*d*) ..	9.53	10.44	9.15	9.62	9.39	9.17	5.97	(*e*) 5.62	9.69
1948	10.04	10.44	9.31	10.25	9.10	9.55	5.99	(*e*) 6.33	9.96
1949	9.43	10.28	8.85	9.45	8.99	8.76	6.83	(*e*) 5.23	9.51
1950—									
Males ..	10.83	10.71	10.21	10.64	10.52	9.13	8.82	(*e*) 6.54	10.60
Females ..	8.36	9.56	7.37	8.61	7.50	8.32	2.36	(*e*) 5.30	8.49
Persons ..	9.60	10.14	8.82	9.63	9.05	8.74	6.43	(*e*) 5.95	9.55

(*a*) Number of deaths per 1,000 of mean population. (*b*) Northern Territory figures included with South Australia prior to 1901. (*c*) Part of New South Wales prior to 1911. (*d*) Excludes deaths of defence personnel from September, 1939 to June, 1947. (*e*) Rates based on revised mean population estimates shown on p. 527 are as follows :—1946–50, 5.30 ; 1947, 5.58 ; 1948, 5.99 ; 1949, 4.72 ; 1950, males 5.29, females 5.02, persons 5.17.

3. **Standardized Death-rates.**—(i) *General.* The death-rates quoted above are crude rates, i.e., they simply show the number of deaths per thousand of mean population without taking into consideration differences in the sex and age composition of the population. Other conditions being equal, however, the crude death-rate of a community will be low if it contains a large percentage of young people (not infants), and conversely it will be relatively high if the population includes a large proportion of elderly people. The foregoing table of crude death-rates, therefore, does not indicate comparative incidence of mortality either as between States in the same year or in any one State over a period of years. In order to obtain a comparison of mortality rates on a uniform basis as far as sex and age constitution are concerned, "standardized" death-rates may be computed. These are computed by selecting a particular distribution of age and sex as a standard, and then calculating what would have been the general death-rate if the death-rates in each sex and age-group were as recorded, but the age and sex distribution the same as in the standard population. For the standardized rates which follow, the standard population compiled by the International Institute of Statistics has been used. This standard is based upon the age distribution according to sex of nineteen European countries at their Censuses nearest to the year 1900. Full details of the "Standard Population" are given in Official Year Book No. 22, p. 962.

(ii) *Death-rates in Age-groups.* The following table provides a comparison of death-rates in age-groups in each State for the latest Census year (1947) in which the ages of population in each State were accurately ascertained.

DEATH-RATES(*a*) IN AGE-GROUPS, 1947.

Age-group (years).	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T.	Aust.
Under 1 ..	29.77	25.83	31.59	23.68	30.66	27.31	47.62	30.30	28.45
1–4 ..	1.99	1.52	2.26	1.33	2.05	1.75	1.32	0.80	1.84
5–14 ..	0.67	0.73	0.86	0.68	0.62	0.81	..	0.77	0.71
15–24 ..	1.11	1.29	1.35	1.08	1.30	1.72	2.90	0.29	1.23
25–34 ..	1.63	1.64	2.14	1.74	1.89	2.13	0.90	1.92	1.75
35–44 ..	3.07	2.88	3.60	2.88	3.22	3.11	4.29	3.82	3.10
45–54 ..	7.86	7.37	7.72	6.65	7.56	6.84	6.65	4.87	7.54
55–64 ..	17.90	17.59	16.54	16.45	16.07	15.50	14.29	15.31	17.31
65–74 ..	42.07	41.46	39.62	36.96	39.72	39.76	38.30	48.65	40.88
75–84 ..	99.57	101.85	98.80	96.91	102.56	97.77	89.74	85.27	100.08
85 and over	223.61	229.26	231.10	221.42	229.68	243.56	200.00	375.00	227.22
Crude Death rate (all ages) ..	9.53	10.44	9.15	9.62	9.39	9.17	5.97	5.62	9.69

(*a*) Number of deaths per 1,000 of population at ages shown.

It will be observed that in this particular year, while the crude death-rate for South Australia was exceeded only by that for Victoria, the rates at most individual ages were lower than for all other States.

(iii) *Comparison of Crude and Standardized Death-rates.* The relative incidence of mortality as between individual States and as between the years 1921, 1933, and 1947 is illustrated in the following statement of crude and "standardized" death-rates. These years have been chosen for comparison because the Census data give essential information as to sexes and ages of the State populations. Crude death-rates are shown to indicate the degree to which they disguise the true position.

CRUDE AND STANDARDIZED DEATH-RATES.

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Aust.
Crude Death-rate(*a*)—							
1921	9.50	10.52	9.37	10.02	10.42	10.30	9.91
1933	8.58	9.59	8.84	8.44	8.64	9.60	8.92
1947	9.53	10.44	9.15	9.62	9.39	9.17	9.69
Standardized Death-rate(*b*)—							
1921	10.35	10.79	10.24	10.38	11.88	10.83	10.58
1933	8.52	8.74	9.10	7.66	8.74	8.86	8.62
1947	7.44	7.31	7.47	6.77	7.28	7.21	7.34

(*a*) Total deaths per 1,000 of mean population. (*b*) *See* explanation of standardized death-rates in par. 3 (i) above.

The comparisons above relate to individual years in which a census of population was taken and should not be used as the bases for general conclusions as to changes in incidence of mortality for other than those years.

(iv) *Standardized Death-rates, Australia,* 1947 *to* 1950. The standardized death-rates for Australia for 1947 and later years were as follows :—1947, 7.34 ; 1948, 7.41 ; 1949, 7.18 ; and 1950, 7.23.

4. **True Death-rates.**—The main objections to standardized death-rates are that the choice of a standard population is arbitrary and that the standardized rates have little value except for comparative purposes, and even then variation of the standard population may make appreciable differences. A correct measurement of the mortality of the population can be obtained, however, from life tables. A life table represents the number of survivors at each age from a selected group of newly-born children who are subject to given mortality conditions, and from such a table the complete expectation of life at birth can be calculated. The reciprocal of this figure is known as the true death-rate, since, if the complete expectation of life of a person at birth is 50 years, say, then each

person will on the average die 50 years after birth, so that in the standard population one person in 50 or 20 per thousand will die each year. The true death-rate for a given period is unaffected by the particular age distribution of that period and is determined solely by the mortality experience of the period as manifested in the rate of survivorship from each year of age to the next. The table below sets out complete expectation of life at birth and true death-rates for the periods covered by Australian life tables.

COMPLETE EXPECTATION OF LIFE AT BIRTH AND TRUE DEATH-RATES: AUSTRALIA.

Period.	Complete Expectation of Life at Birth. (Years.)		True Death-rate.	
	Males.	Females.	Males.(a)	Females.(b)
1881–1890..	47.20	50.84	21.19	19.67
1891–1900..	51.08	54.76	19.58	18.26
1901–1910..	55.20	58.84	18.12	17.00
1920–1922..	59.15	63.31	16.91	15.80
1932–1934..	63.48	67.14	15.75	14.89
1946–1948..	66.07	70.63	15.14	14.16

(a) Number of deaths per 1,000 males in life table or stationary population. (b) Number of deaths per 1,000 females in life table or stationary population.

5. **Crude Death-rates of Various Countries.**—The following table gives the crude death-rate for Australia and each State thereof in comparison with the rates for various other countries.

CRUDE DEATH-RATES (a): VARIOUS COUNTRIES.

Country.	1908–13.	1921–25.	1926–30.	1931–35.	1950.
Netherlands	13.9	10.4	9.9	8.9	7.5
Canada	(b)	11.2	11.1	9.7	8.9
Norway	13.6	11.5	11.0	10.4	9.1
Union of South Africa (c)	(d) 10.3	9.7	9.7	9.8	9.1
Argentine	17.5	14.4	13.3	12.1	(e) 9.1
Denmark	13.2	11.3	11.1	10.9	9.2
New Zealand (f)	9.3	8.6	8.6	8.2	9.3
United States of America	(d) 14.1	11.8	11.8	(g) 10.9	9.6
Australia (h)	**10.7**	**9.5**	**9.3**	**9.0**	**9.6**
Tasmania (h)	10.7	9.7	9.4	9.6	8.7
Queensland (h)	10.3	9.3	9.1	8.6	8.8
Western Australia (h)	10.3	9.2	8.9	8.8	9.1
New South Wales (h)	10.3	9.3	9.3	8.7	9.6
South Australia (h)	10.1	9.4	8.8	8.7	9.6
Victoria (h)	11.7	10.1	9.6	9.7	10.1
Italy	20.4	17.4	16.0	14.1	9.8
Sweden	14.0	12.1	12.1	11.6	10.0
Switzerland	15.2	12.5	12.1	11.8	10.1
Finland	16.4	15.1	14.8	13.3	10.1
Greece	(b)	16.5	16.6	16.5	(e) 10.7
Spain	22.8	20.2	17.9	16.4	10.8
Japan	20.5	21.8	19.3	17.9	11.0
Hungary	(d) 22.9	19.9	17.0	15.8	(i) 11.2
Czechoslovakia	21.0	16.1	15.3	13.8	11.4
Great Britain and Northern Ireland	14.5	12.4	12.3	12.2	11.7
Northern Ireland	16.9	15.6	14.8	14.3	11.5
England and Wales	14.1	12.2	12.1	12.0	11.6
Scotland	15.5	13.9	13.6	13.2	12.4

(a) Number of deaths per 1,000 of mean population. (b) Not available. (c) White population only. (d) 1911–13. (e) 1949. (f) Excluding Maoris. (g) 1933–35. (h) Excluding full-blood aboriginals. (i) 1948.

CRUDE DEATH-RATES (*a*): VARIOUS COUNTRIES—*continued.*

Country.	1908–13.	1921–25.	1926–30.	1931–35.	1950.
Portugal	(*d*) 20.9	20.4	18.4	16.9	12.1
Belgium	15.7	13.4	13.7	12.9	12.4
Austria	(*d*) 18.8	15.8	14.4	13.5	12.4
Eire	16.9	14.6	14.4	14.0	12.6
France	18.6	17.2	16.8	15.7	12.6
Ceylon	31.4	27.8	25.1	24.7	12.6
Yugoslavia	(*b*)	20.2	20.0	17.9	13.1
Chile	(*d*) 31.0	30.3	25.8	24.4	15.7
Mexico	(*b*)	(*j*) 25.5	25.6	24.8	16.4
Egypt	25.8	25.4	26.2	27.4	22.1

(*a*) Number of deaths per 1,000 mean population. (*b*) Not available. (*d*) 1911–13. (*j*) 1922–25.

6. **True Death-rates of Various Countries.**—The following table gives the true death-rate for Australia in comparison with the rates for various other countries :—

TRUE DEATH-RATES : VARIOUS COUNTRIES.

Country.	Period.	True Death-rate.		Country.	Period.	True Death-rate.	
		Males. (*a*)	Females. (*b*)			Males. (*a*)	Females. (*b*)
Netherlands	1947–49	14.4	14.0	Norway	1922–31	16.4	15.7
Sweden	1941–45	14.9	14.3	Eire	1940–42	16.9	16.4
Australia (*c*)	**1946–48**	**15.1**	**14.2**	Germany (*f*)	1946–47	17.3	15.8
England and Wales	1948	15.1	14.1	Northern Ireland	1936–38	17.3	16.9
Denmark	1941–45	15.2	14.8	Japan	1949–50	17.8	16.8
New Zealand (*d*)	1934–38	15.3	14.6	Belgium	1928–32	17.9	16.7
Canada	1947	15.3	14.5	Hungary	1941	18.2	17.2
Union of South Africa (*e*)	1945–47	15.7	14.6	Finland	1941–45	18.3	16.4
Scotland	1948	15.7	14.8	Austria	1930–33	18.3	17.1
France	1946–48	16.0	14.7	Italy	1930–32	18.6	17.9
Switzerland	1939–44	16.0	14.9	Czechoslovakia	1929–32	19.3	18.1
United States of America	1939–41	16.2	15.2	Greece	1926–30	20.4	19.7
				Poland	1931–32	20.7	19.5

(*a*) Number of deaths per 1,000 males in life table or stationary population (*see* explanation on pages 599–600). (*b*) Number of deaths per 1,000 females in life table or stationary population (*see* explanation on pages 599–600). (*c*) Excludes full-blood aboriginals. (*d*) Excludes Maoris. (*e*) White population only. (*f*) Federal Republic (Western Germany).

7. **Australian Life Tables.**—(i) *Life Tables prior to* 1947. It has been the practice at each Census from 1911 onwards to prepare Life Tables representative of the mortality experience of Australia. In 1911 the mortality of the Australian population for the thirty years from 1881 to 1910 inclusive was investigated by the Commonwealth Statistician. Tables were compiled for each State and for Australia as a whole in respect of each sex for each of the decennial periods 1881–1890, 1891–1900 and 1901–1910. These compilations furnished a comprehensive view of Australian mortality in respect of sex, of time, and of geographical distribution, and practically superseded all Life Tables prepared in Australia prior to 1911. In addition, monetary tables based on the experience for the whole of Australia for the decennium 1901–1910 were prepared and published.

At the Census of 1921 Life Tables were prepared by the Commonwealth Statistician from the population recorded and the deaths in the three years 1920–22. Similarly in 1933 the Life Tables, which were prepared by Mr. F. W. Barford, M.A., A.I.A., were based on the Census population and the deaths in the calendar years 1932–34.

(ii) *Life Tables of Census of* 1947. On the occasion of the 1947 Census, Life Tables representing the sixth in the series were compiled by the Commonwealth Actuary, Mr. W. C. Balmford, F.I.A. These were based on the population recorded, in conjunction with the deaths during 1946, 1947 and 1948, as it was considered undesirable to take into account deaths occurring prior to 1946 owing to the possible effects on the civilian population of conditions arising from the 1939–45 War. Full particulars of the data used, the methods of construction and the tabulations of these Life Tables will be found in the report of the Commonwealth Actuary which was published by the Commonwealth Statistician in 1950. This report will also appear in Volume III. of the Australian Census of 1947.

The main characteristics of the Life Tables and the conclusions to be drawn from the following comparative tables are :—

(*a*) A further substantial reduction has occurred in the mortality rates in the first year of life ;

(*b*) A further marked improvement is evident in the vitality of both males and females up to about age 40 ;

(*c*) A less pronounced improvement is shown in the mortality rates of both sexes between ages 40 and 80 ; indeed, in the case of males, the rates between ages 60 and 80 are generally in excess of those recorded in the 1932–34 Tables ;

(*d*) Although the 1932–34 Tables disclosed that the mortality rates of females at the child-bearing ages close to age 30 were slightly in excess of the rates for males at the same ages, the differences in the rates on this occasion are slightly in favour of the females ;

(*e*) The mortality rates for females are lighter than those for males at all ages ;

(*f*) On the whole, the vitality of the female population shows a greater degree of improvement over the last fourteen years than does that of the males.

AUSTRALIAN LIFE TABLES: NUMBER OF SURVIVORS (l_x) AT SELECTED AGES OUT OF 100,000 BIRTHS.

Age (x).	Males.			Females.		
	1920–22.	1932–34.	1946–48.	1920–22.	1932–34.	1946–48.
0	100,000	100,000	100,000	100,000	100,000	100,000
10	89,389	93,193	95,619	91,314	94,424	96,549
20	87,697	91,797	94,562	89,906	93,341	95,953
30	84,743	89,566	92,967	87,086	91,174	94,740
40	80,813	86,539	90,823	83,279	88,175	92,758
50	74,330	81,061	85,946	78,313	83,680	89,011
60	63,386	69,950	74,251	70,150	75,565	81,257
70	44,332	50,086	52,230	54,771	59,629	65,398
80	18,614	22,223	22,785	27,170	31,539	35,401

AUSTRALIAN LIFE TABLES : RATES OF MORTALITY (q_x) AT SELECTED AGES.

Age (x).	Males.			Females.		
	1920–22.	1932–34.	1946–48.	1920–22.	1932–34.	1946–48.
0	.07132	.04543	.03199	.05568	.03642	.02519
10	.00156	.00119	.00072	.00127	.00087	.00050
20	.00284	.00219	.00169	.00252	.00183	.00091
30	.00390	.00271	.00186	.00387	.00279	.00165
40	.00617	.00460	.00337	.00524	.00402	.00284
50	.01158	.00966	.00919	.00808	.00744	.00641
60	.02407	.02216	.02278	.01571	.01466	.01360
70	.05290	.05082	.05256	.04090	.03802	.03607
80	.13340	.12659	.12011	.11230	.10106	.10027

AUSTRALIAN LIFE TABLES : COMPLETE EXPECTATION OF LIFE ($\mathring{e}_x$) AT SELECTED AGES.

Age (x).	Males.			Females.		
	1920–22.	1932–34.	1946–48.	1920–22.	1932–34.	1946–48.
0	59.15	63.48	66.07	63.31	67.14	70.63
10	56.01	58.02	59.04	59.20	61.02	63.11
20	46.99	48.81	49.64	50.03	51.67	53.47
30	38.44	39.90	40.40	41.48	42.77	44.08
40	30.05	31.11	31.23	33.14	34.04	34.91
50	22.20	22.83	22.67	24.90	25.58	26.14
60	15.08	15.57	15.36	17.17	17.74	18.11
70	9.26	9.60	9.55	10.41	10.98	11.14

AUSTRALIAN LIFE TABLES : PROBABILITY OF SURVIVING TEN YEARS ($_{10}p_x$) AT SELECTED AGES.

Age (x).	Males.			Females.		
	1920–22.	1932–34.	1946–48.	1920–22.	1932–34.	1946–48.
0	.89389	.93193	.95619	.91314	.94424	.96549
10	.98107	.98502	.98895	.98458	.98853	.99383
20	.96632	.97570	.98313	.96863	.97678	.98736
30	.95362	.96620	.97694	.95628	.96711	.97908
40	.91978	.93670	.94630	.94037	.94902	.95960
50	.85276	.86293	.86393	.89576	.90302	.91289
60	.69940	.71603	.70342	.78077	.78911	.80483
70	.41988	.44370	.43624	.49607	.52892	.54132

8. **Infant Deaths and Death-rates.**—(i) *Australia*, 1901 *to* 1950. The universal experience that during the first few years of life the higher death-rate of male infants tends to counteract the excess of male births is confirmed by the fact that out of 466,673 male infants born from 1946 to 1950, 14,040 (30.09 per 1,000) died during the first year of life, while of 441,918 female infants only 10,472 (23.70 per 1,000) died during the first year. Still-births are not included in any of the tables relating to deaths.

INFANT DEATHS AND DEATH-RATES : AUSTRALIA.

Period.	Number of deaths under one year.			Rate of Infant Mortality.(a)		
	Males.	Females.	Total.	Males.	Females.	Total.
			ANNUAL AVERAGES.			
1901–05 ..	5,500	4,447	9,947	104.25	88.83	96.91
1906–10 ..	4,880	3,821	8,701	84.78	70.02	77.61
1911–15 ..	5,274	4,063	9,337	77.65	62.65	70.32
1916–20 ..	4,757	3,597	8,354	71.63	57.31	64.67
1921–25 ..	4,474	3,394	7,868	64.23	51.21	57.88
1926–30 ..	3,909	2,942	6,851	57.66	45.99	51.99
1931–35 ..	2,649	1,986	4,635	46.00	36.29	41.27
1936–40 ..	2,679	2,016	4,695	43.23	34.16	38.81
1941–45 ..	2,921	2,215	5,136	39.11	31.18	35.24
1946–50 ..	2,808	2,094	4,902	30.09	23.70	26.98
			YEARLY TOTALS.			
1946 ..	2,922	2,194	5,116	32.12	25.69	29.01
1947 ..	2,977	2,225	5,202	31.73	25.12	28.52
1948 ..	2,856	2,086	4,942	31.28	24.07	27.77
1949 ..	2,624	1,963	4,587	28.29	22.18	25.31
1950 ..	2,661	2,004	4,665	27.20	21.60	24.47

(a) Number of deaths under one year per 1,000 live births registered.

(ii) *States*, 1901 *to* 1950. For each State and Territory the rates of infant mortality during the period 1901 to 1950 were as follows :—

INFANT MORTALITY RATES(*a*) : UNDER ONE YEAR.

Period.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T.	Aust.
1901–05..	97.02	95.91	94.35	86.70	124.79	90.00	149.35	(*b*)	96.91
1906–10..	77.30	79.90	71.27	68.38	89.80	83.18	143.79	(*b*)	77.61
1911–15..	71.05	72.23	65.68	67.26	72.43	70.91	85.11	32.56	70.32
1916–20..	64.82	67.18	63.04	61.93	61.73	63.84	67.15	40.40	64.67
1921–25..	58.11	61.93	50.99	54.19	59.14	60.44	40.82	60.24	57.88
1926–30..	54.74	52.34	47.41	46.95	49.27	53.37	66.09	71.31	51.99
1931–35..	41.92	42.76	39.46	35.12	40.81	44.47	80.60	34.48	41.27
1936–40..	41.18	37.63	36.75	33.08	39.70	41.23	44.80	21.78	38.81
1941–45..	36.29	34.73	34.55	33.20	33.37	39.54	55.97	18.72	35.24
1946–50..	28.91	23.82	27.49	26.50	28.15	26.53	37.37	19.89	26.98
1946 ..	30.22	27.16	29.27	27.07	31.06	30.23	30.30	19.31	29.01
1947 ..	29.81	26.28	30.82	24.27	30.92	27.31	43.48	19.85	28.52
1948 ..	30.30	23.93	27.96	29.74	25.60	27.65	35.71	23.45	27.77
1949 ..	27.29	21.89	24.72	27.68	26.42	23.91	37.57	15.87	25.31
1950 ..	27.04	20.09	24.77	24.04	27.13	23.75	36.50	20.96	24.47

(*a*) Number of deaths under one year per 1,000 live births registered. (*b*) Part of New South Wales prior to 1911.

INFANT MORTALITY RATES(*a*): UNDER ONE MONTH.

Period.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T.	Aust.
1901–05 ..	33.11	34.49	32.13	30.73	37.09	33.54	(*b*)	(*c*)	33.46
1906–10 ..	31.47	32.45	30.87	26.83	30.74	29.17	(*b*)	(*c*)	31.10
1911–15 ..	31.75	33.07	30.73	29.07	30.87	32.68	38.30	23.26	31.69
1916–20 ..	32.12	33.57	29.62	29.43	29.43	31.48	40.77	35.35	31.70
1921–25 ..	29.97	32.19	27.44	27.83	27.56	31.73	11.66	18.07	29.91
1926–30 ..	29.63	29.75	27.66	26.84	25.10	33.12	14.37	28.86	28.96
1931–35 ..	27.62	27.78	27.91	22.99	25.11	30.09	35.26	23.45	27.27
1936–40 ..	27.63	25.94	26.15	21.62	22.62	29.56	28.80	16.33	26.19
1941–45 ..	24.52	24.40	24.41	20.86	20.60	27.24	33.57	12.54	23.97
1946–50 ..	20.53	17.55	19.95	18.38	19.53	19.34	21.45	15.80	19.34
1946 ..	21.96	20.22	22.31	18.85	21.15	23.08	30.30	15.44	21.25
1947 ..	21.46	19.59	21.44	17.90	19.96	20.73	25.36	16.79	20.51
1948 ..	21.33	17.14	20.21	19.28	19.10	20.06	10.71	17.93	19.64
1949 ..	19.24	16.28	17.44	18.39	19.24	17.02	26.01	12.21	18.02
1950 ..	18.77	14.71	18.43	17.57	18.41	16.02	19.46	16.77	17.41

(*a*) Number of deaths of children aged under one month per 1,000 live births registered. (*b*) Not available. (*c*) Part of New South Wales prior to 1911.

INFANT MORTALITY RATES(*a*): ONE MONTH AND UNDER ONE YEAR.

Period.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T.	Aust.
1901–05 ..	63.91	61.42	62.22	55.97	87.70	56.46	(*b*)	(*c*)	63.45
1906–10 ..	45.83	47.45	40.40	41.55	59.06	54.01	(*b*)	(*c*)	46.51
1911–15 ..	39.30	39.16	34.95	38.19	41.56	38.23	46.81	9.30	38.63
1916–20 ..	32.70	33.61	33.42	32.50	32.30	32.36	26.38	5.05	32.97
1921–25 ..	28.14	29.74	23.55	26.36	31.58	28.71	29.16	42.17	27.97
1926–30 ..	25.11	22.59	19.75	20.11	24.17	20.25	51.72	42.45	23.03
1931–35 ..	14.30	14.98	11.55	12.13	15.70	14.38	45.34	11.03	14.00
1936–40 ..	13.55	11.69	10.60	11.46	17.08	11.67	16.00	5.45	12.62
1941–45 ..	11.77	10.33	10.14	12.34	12.77	12.30	22.40	6.21	11.27
1946–50 ..	8.38	6.27	7.54	8.12	8.62	7.19	15.92	4.09	7.64
1946 ..	8.26	6.94	6.96	8.22	9.91	7.15	..	3.87	7.76
1947 ..	8.35	6.69	9.38	6.37	10.96	6.58	18.12	3.06	8.01
1948 ..	8.97	6.79	7.75	10.46	6.50	7.59	25.00	5.52	8.13
1949 ..	8.05	5.61	7.28	9.29	7.18	6.89	11.56	3.66	7.29
1950 ..	8.27	5.38	6.34	6.47	8.72	7.73	17.04	4.19	7.06

(*a*) Number of deaths of children aged one month and under one year per 1,000 live births registered. (*b*) Not available. (*c*) Part of New South Wales prior to 1911.

These tables indicate the striking decrease in infant mortality in Australia since the beginning of the century, the number of deaths of children aged under one year per 1,000 births for 1950 being slightly more than one-fourth of the average rate for 1901–05. The tables above reveal the fact that this improvement was due almost entirely to the decrease in deaths from preventable causes, the mortality rate for children aged one month but under one year declining by 89 per cent. while that for children aged under one month declined by only 48 per cent.

(iii) *Statistical Divisions.* The total numbers of births and of deaths of children under one year of age for 1950 are shown in *Demography Bulletin* No. 68 for each of the sixty-five statistical divisions for which vital statistics have been tabulated.

(iv) *Various Countries and Cities.* Compared with other countries Australia occupies a very favourable position in respect of infant mortality. In 1950 only New Zealand and Sweden recorded a lower rate than Australia.

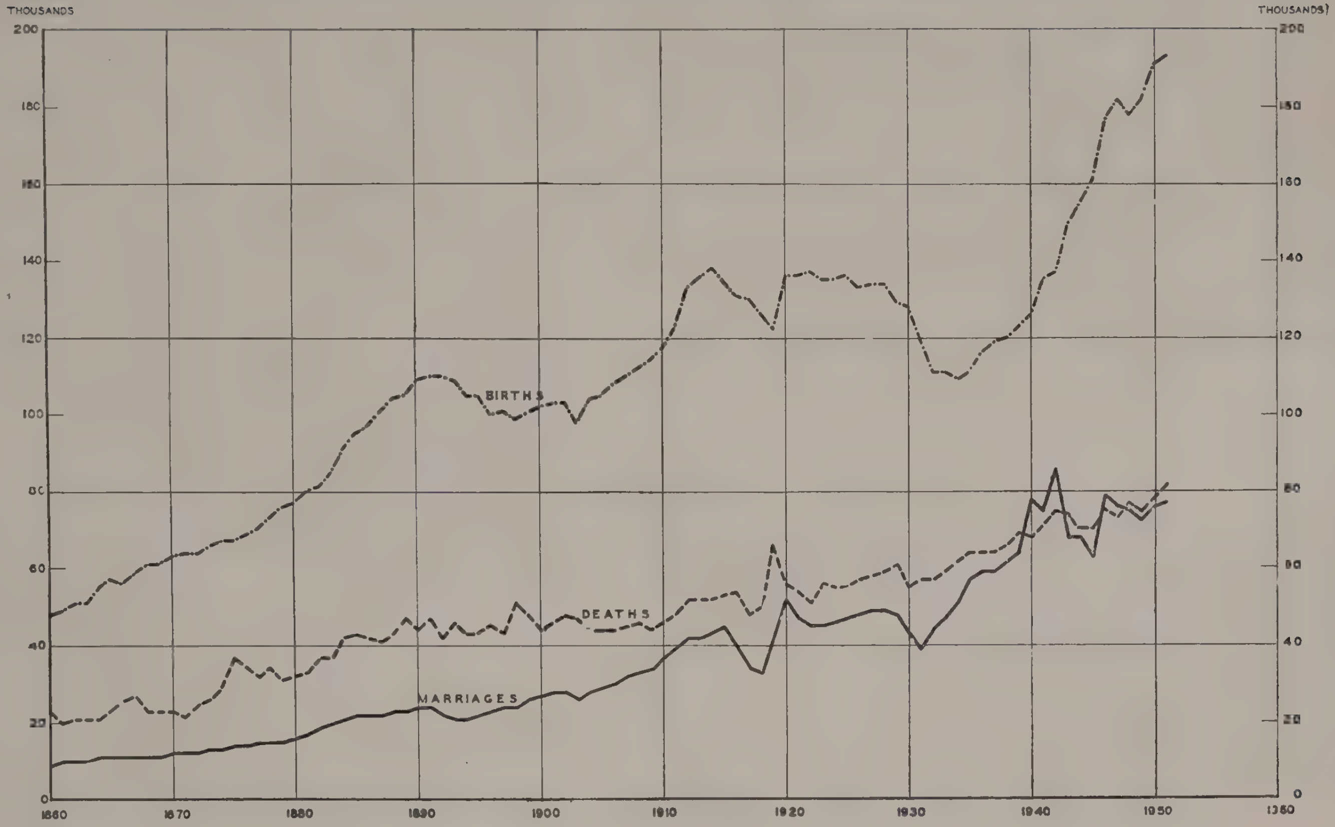
A study of the respective rates shows that a high birth-rate is often, though not invariably, accompanied by a high infant death-rate.

INFANT MORTALITY RATES : VARIOUS COUNTRIES.

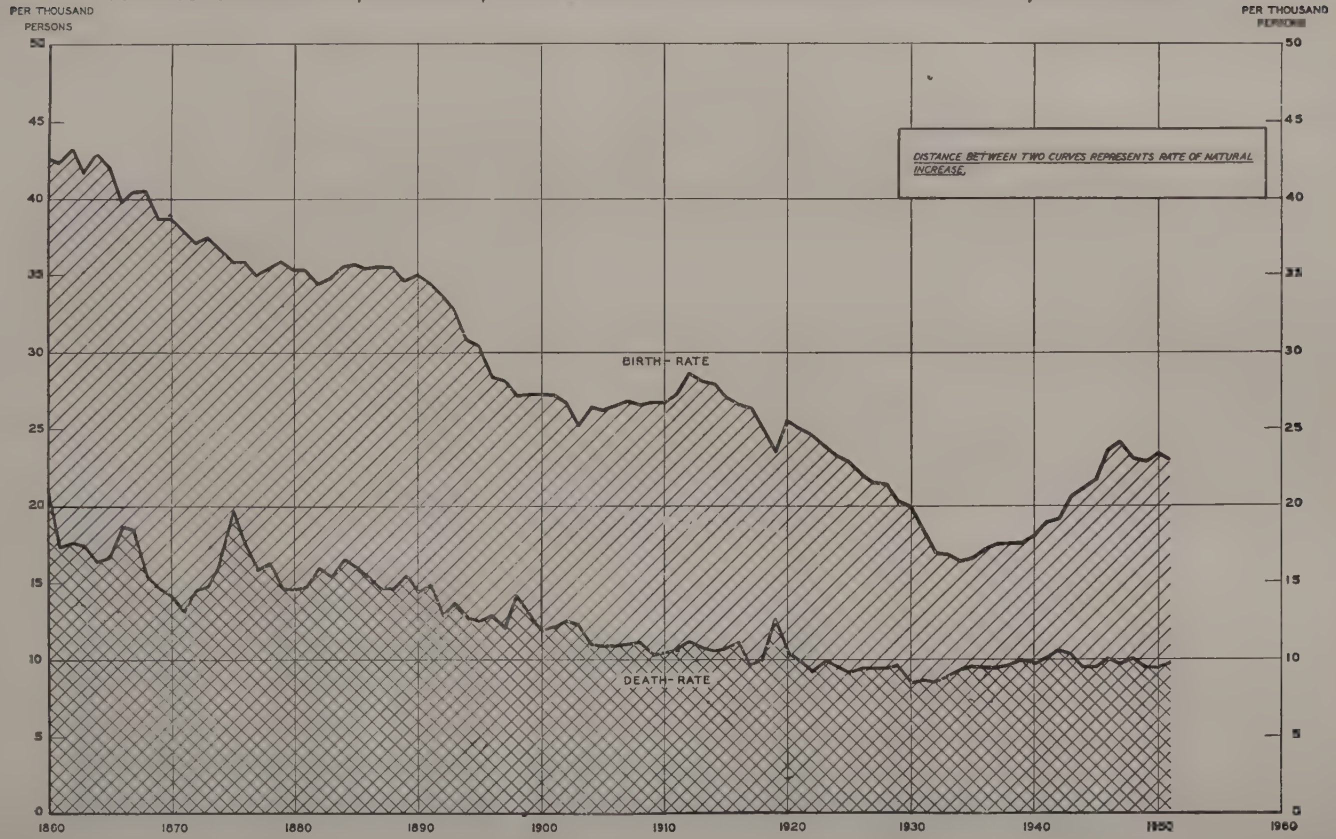
Country.	Infant Mortality Rate.(*a*)						Crude Birth-rate (*b*) 1950.
	1906–15.	1921–25.	1926–30.	1931–35.	1936–40.	1950.	
Sweden	74	60	58	50	42	20	16.4
New Zealand (*c*)	61	43	37	32	32	23	24.6
Australia (*d*)	**74**	**58**	**52**	**41**	**39**	**24**	**23.3**
Victoria (d)	76	62	52	43	38	20	22.6
Tasmania (d)	77	60	53	44	41	24	25.7
South Australia (d) ..	68	54	47	35	33	24	24.7
Queensland (d)	68	51	47	39	37	25	24.6
Western Australia (d) ..	81	59	49	41	40	27	25.5
New South Wales (d) ..	74	58	55	42	41	27	22.2
Netherlands	115	64	56	45	37	25	22.7
Norway..	(*e*)	52	49	45	(*f*) 40	(*g*) 28	19.3
United States of America ..	(*e*)	74	68	59	51	29	23.4
Switzerland	108	65	54	48	45	31	18.1
Denmark	103	82	82	71	60	31	18.6
Great Britain and Northern Ireland	(*e*)	78	70	65	59	31	16.1
England and Wales ..	113	76	68	62	56	30	15.7
Northern Ireland ..	92	82	79	78	77	39	20.9
Scotland	113	92	85	81	76	39	17.7
Union of South Africa (*h*) ..	(*i*) 91	73	67	63	53	36	25.7
Canada	(*e*)	98	93	75	64	41	27.1
Finland	(*i*) 112	96	88	72	72	44	24.4
Eire	92	69	70	68	69	45	21.0
France	122	95	89	73	70	47	20.4
Belgium..	139	100	95	82	77	59	16.5
Japan	151	159	137	120	(*j*) 112	60	28.3
Italy	144	127	119	105	103	63	19.6
Austria	(*e*)	136	117	99	81	64	15.6
Spain	156	143	124	113	121	69	19.9
Argentine	(*e*)	116	113	97	96	(*k*) 79	(*g*) 24.9
Czechoslovakia	(*e*)	155	147	130	(*j*) 122	(*g*) 82	22.9
Ceylon	(*i*) 207	190	175	182	160	82	40.2
Portugal	(*e*)	146	146	146	135	94	24.2
Mexico	(*e*)	(*l*) 223	173	134	127	97	45.7
Hungary	(*i*) 198	187	172	157	131	(*m*) 100	(*m*) 19.1
Yugoslavia	(*e*)	(*e*)	151	153	(*j*) 141	117	30.2
Chile	(*i*) 301	265	229	248	234	153	32.4
Egypt	(*e*)	144	152	165	163	169	48.8
Rumania	(*i*) 195	201	192	182	180	(*n*) 199	(*n*) 23.4

(*a*) Number of deaths under 1 year per 1,000 live births registered. (*b*) Number of live births per 1,000 of mean population. (*c*) Excludes Maoris. (*d*) Excludes full-blood aboriginals. (*e*) Not available. (*f*) 1935–39. (*g*) 1949. (*h*) White population only. (*i*) 1911–13. (*j*) 1935–38. (*k*) 1946. (*l*) 1922–25. (*m*) 1948. (*n*) 1947.

BIRTHS, DEATHS, AND MARRIAGES: AUSTRALIA, 1860 to 1951

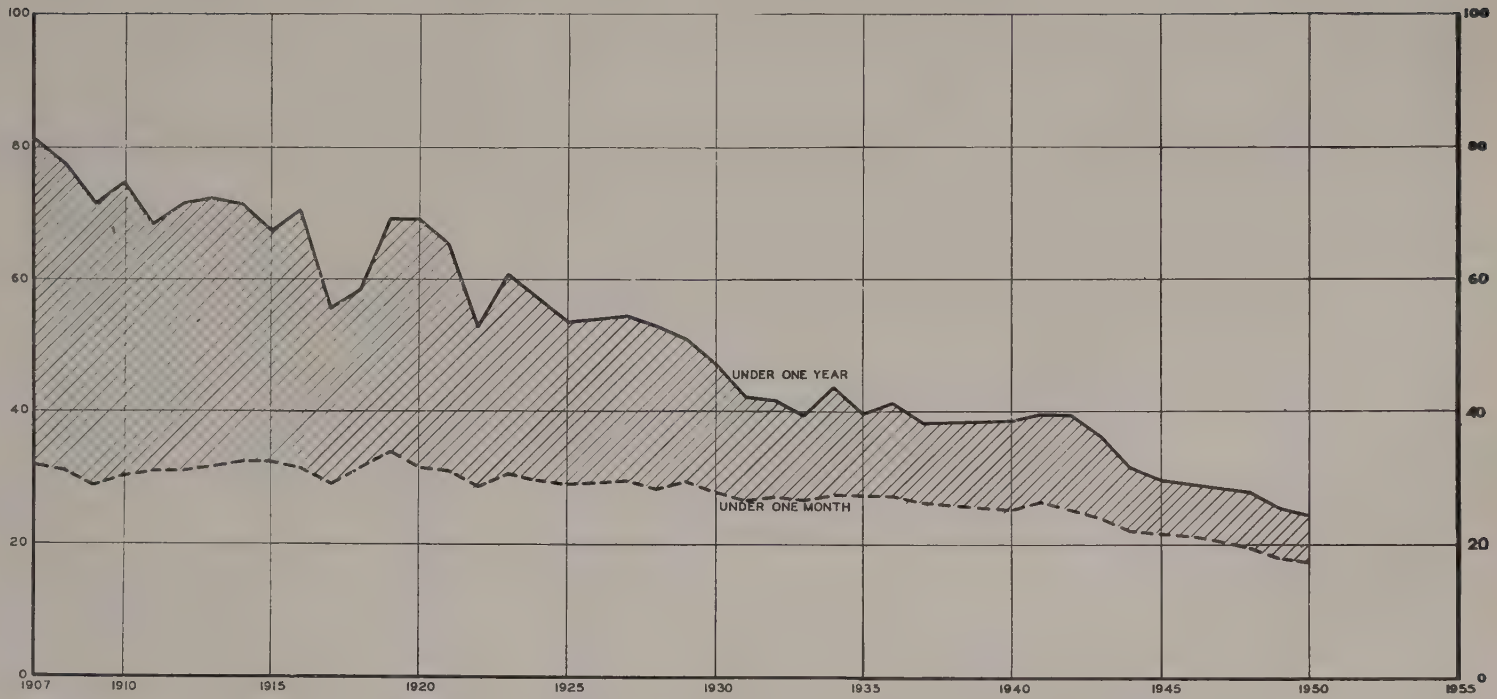


RATES OF BIRTHS, DEATHS, AND NATURAL INCREASE: AUSTRALIA, 1860 TO 1951



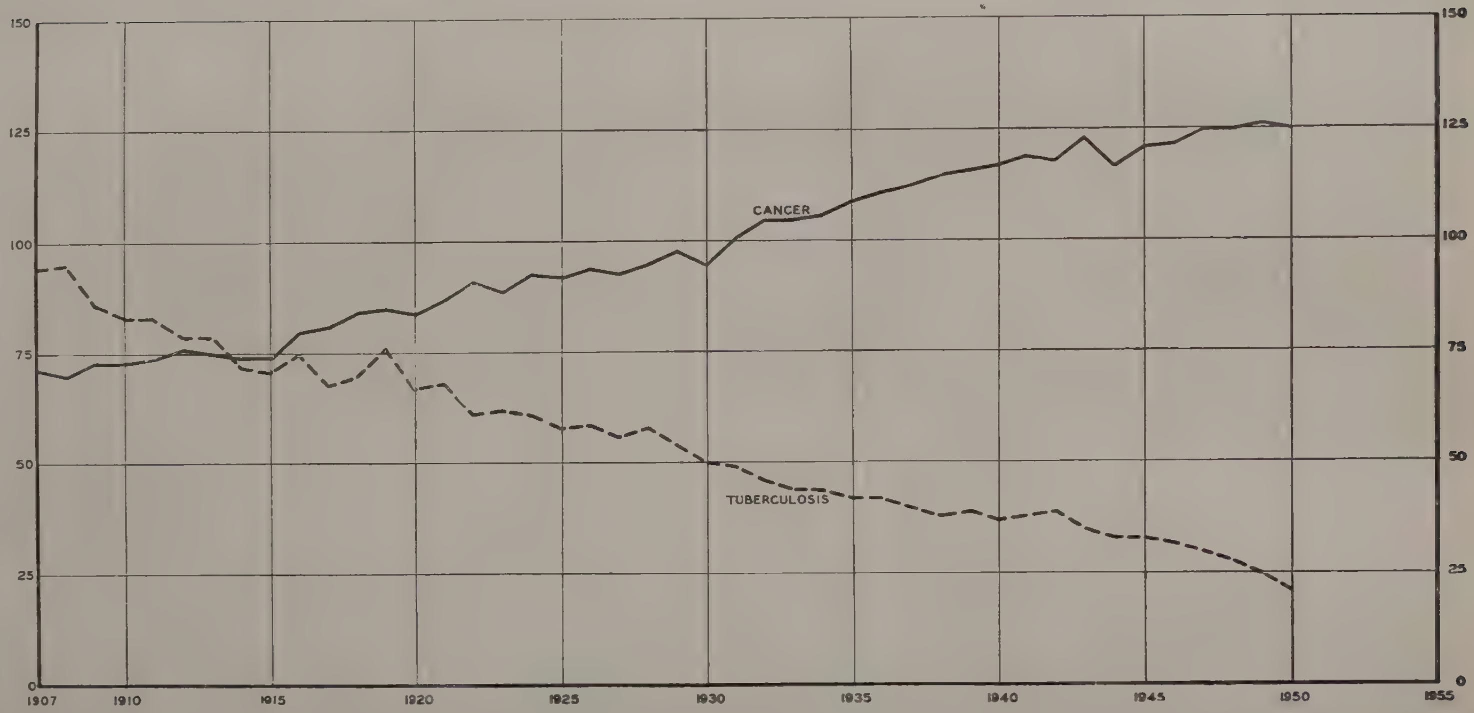
INFANT MORTALITY RATES: AUSTRALIA, 1907 TO 1950

(INFANT DEATHS PER 1000 LIVE BIRTHS)



EXPLANATION.—This graph shows the marked improvement in infantile mortality rates over the past 40 years. The improvement has been confined mainly to children over one month, considerably less having occurred in the first month of life (*see* page 605).

CANCER AND TUBERCULOSIS: AUSTRALIA, 1907 TO 1950
NUMBER OF DEATHS PER 100,000 OF POPULATION



(*See* page 631.

In 1950 the Australian cities, Melbourne, Hobart, Perth, Sydney and Adelaide were among the ten cities having the lowest rates in the following list. The list is headed by Stockholm (18), Melbourne (19), Christchurch (19), and Oslo (21), the next six cities being Hobart, Auckland, Wellington, Perth, Sydney and Adelaide. Of the cities listed, Cairo had the highest rate, 179.

INFANT MORTALITY RATES(*a*) : VARIOUS CITIES.

City.	Infant Mortality Rate.(*a*)		City.	Infant Mortality Rate.(*a*)	
	1921.	1950.		1921.	1950.
Stockholm	61	18	Brisbane (*b*)	62	32
Melbourne (*b*)	74	19	Johannesburg(*g*)	101	32
Christchurch (*c*)	54	(*d*) 19	Cape Town(*g*)	82	(*e*) 33
Oslo	54	21	Sheffield	99	(*d*) 35
Hobart (*b*)	75	23	Paris	95	36
Auckland (*c*)	54	(*d*) 23	Manchester	94	(*d*) 38
Wellington (*c*)	61	(*d*) 24	Birmingham	82	38
Perth (*b*)	81	25	Rome	(*f*)	42
Sydney (*b*)	62	25	Hamburg	95	44
Adelaide (*b*)	74	25	Glasgow	106	44
New York City	72	25	Liverpool	105	(*d*) 44
Amsterdam	54	25	Dublin	123	47
London	80	26	Belfast	115	50
Detroit	83	27	Montreal	158	52
Copenhagen	67	27	Munich	126	58
Chicago	84	(*e*) 28	Berlin	135	64
Toronto	91	28	Cologne	140	76
Aberdeen	108	29	Lisbon	(*f*)	(*d*) 96
Edinburgh	96	29	Bombay	402	152
Geneva	(*f*)	29	Cairo	(*f*)	179
Leeds	98	(*d*) 30			

(*a*) Number of deaths under 1 year per 1,000 live births registered. (*b*) Excludes full-blood aboriginals. (*c*) Excludes Maoris. (*d*) 1949. (*e*) 1948. (*f*) Not available. (*g*) White population only.

(v) *Causes of Deaths of Children under one Year.* The following table shows for 1949 the ages of all children who died under one year of age from each of twenty-three causes. These figures are presented on the basis of the Fifth Revision of the International List of Causes of Death. Similar figures for 1950 have been tabulated on the basis of the Sixth Revision and until further analysis of the effects of the change in basis is made it will not be practicable to show them in comparison with previous years. The infant mortality rates for all births are shown for 1911, 1921, 1931, 1941 and 1949 and for ex-nuptial births for 1925, 1931, 1941 and 1949. Full particulars of the causes of death of all children who died in 1949 and 1950 under one year and also of those under one month are given for each State and Territory in *Demography Bulletins* Nos. 67 and 68 respectively. These contain, in addition, detailed information for Australia as to the age at which children died from each cause of death.

In 1949, pre-natal influences, such as congenital malformations, congenital debility and premature birth, together with injuries at birth and other diseases of early infancy accounted for 3,280 or 72 per cent. of all deaths under one year; and of these 3,280 deaths, 2,674 or 82 per cent., occurred less than a week after birth. Among the survivors of the first week, broncho-pneumonia caused the greatest number of deaths attributable to a specific disease. This disease was responsible for 318 deaths, representing 7 per cent. of all deaths under one year, or 1·75 per 1,000 births. Diarrhœa and enteritis caused 198 deaths and other pneumonia 177.

CAUSES OF DEATH OF CHILDREN UNDER ONE YEAR : AUSTRALIA, 1949.

Cause of Death.	Age at Death.															
	Under 1 week.	1 week.	2 weeks.	3 weeks.	1 month.	2 months.	3 months.	4 months.	5 months.	6 months.	7 months.	8 months.	9 months.	10 months.	11 months.	Total under 1 year.
Cerebro-spinal Meningococcal Meningitis	..	..	..	..	1	..	3	2	1	..	5	3	..	..	2	17
Whooping Cough	..	..	..	1	7	13	9	8	3	5	4	2	4	3	1	60
Diphtheria	..	..	..	..	..	..	..	3	..	..	..	1	2	2	1	9
Erysipelas	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1
Respiratory Tuberculosis.. ..	..	..	..	..	..	..	..	..	..	2	..	3	..	1	..	6
Tuberculosis of Meninges.. ..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	2	3
Tuberculosis, Other Forms ..	..	..	..	..	..	1	1	..	..	..	..	..	..	1	..	3
Syphilis	..	..	..	..	1	1	..	..	..	..	..	..	..	..	..	2
Measles	..	..	..	..	..	..	2	..	..	1	2	4	..	2	1	12
Meningitis (Non-meningococcal) ..	4	2	2	2	2	..	2	1	..	3	1	1	4	2	3	29
Convulsions	..	..	1	..	5	1	..	..	..	1	1	..	1	..	1	11
Acute Bronchitis	..	1	..	..	2	4	..	..	1	..	..	1	2	..	..	11
Broncho-pneumonia	47	24	15	12	37	20	26	20	16	17	25	12	19	17	11	318
Pneumonia, Other	42	12	5	7	14	18	11	14	14	7	5	10	4	9	5	177
Other Diseases of the Stomach ..	..	..	..	..	..	1	1	..	..	..	..	..	..	..	..	2
Diarrhœa and Enteritis	4	2	11	12	17	13	19	23	13	12	17	14	16	16	9	198
Hernia and Intestinal Obstruction..	7	5	3	..	3	3	4	1	3	2	2	..	2	3	3	41
Congenital Malformations ..	268	54	34	30	66	36	29	26	17	16	15	8	15	9	10	633
Congenital Debility	37	3	2	..	6	6	3	..	1	1	..	..	..	1	1	61
Premature Birth	1,440	44	22	12	12	4	5	1	1	1	..	..	..	..	..	1,542
Injury at Birth	530	25	10	5	5	2	1	1	..	1	..	..	..	1	1	582
Other Diseases of Early Infancy ..	399	24	9	8	7	1	3	4	..	3	..	2	2	..	..	462
Other Causes	48	20	11	9	30	28	36	39	28	33	34	28	16	25	22	407
Total	2,827	216	125	98	215	152	155	143	99	105	111	89	87	92	73	4,587

Cause of Death.	All Children.					Ex-nuptial Children.(a)				
	No. of Deaths per 1,000 Total Births.					No. of Deaths per 1,000 Ex-nuptial Births.				No. of Deaths 1949.
	1911.	1921.	1931.	1941.	1949.	1925.	1931.	1941.	1949.	
Cerebro-spinal Meningococcal Meningitis	..	0.03	0.08	0.16	0.09	0.48	0.17	0.39	0.14	1
Whooping Cough	1.57	1.97	1.58	1.27	0.33	2.06	1.71	1.94	0.14	1
Diphtheria	0.25	0.59	0.25	0.13	0.05	0.32	0.34	..	..	..
Erysipelas	0.16	0.24	0.11	0.04	0.01	0.16	..	0.19	..	..
Respiratory Tuberculosis.. ..	0.08	0.07	0.03	0.04	0.03	..	..	..	..	..
Tuberculosis of Meninges ..	0.31	0.18	0.22	0.10	0.02	0.32	0.34	0.19	..	..
Tuberculosis, Other Forms ..	0.22	0.08	0.04	0.05	0.02	..	..	0.19	..	..
Syphilis	0.85	0.56	0.20	0.09	0.01	1.27	0.51	0.77	0.27	2
Measles	0.34	0.15	0.10	0.01	0.07	0.16	0.51	..	..	..
Meningitis (Non-meningococcal) ..	1.83	1.10	0.32	0.30	0.16	0.32	..	0.19	0.14	1
Convulsions	2.55	1.45	0.39	0.17	0.06	2.38	0.51	0.39	0.14	1
Acute Bronchitis	2.34	1.50	0.32	0.11	0.06	0.48	0.86	..	0.14	1
Broncho-pneumonia	2.86	3.08	2.82	2.96	1.75	8.09	5.31	4.65	2.17	16
Pneumonia, Other	1.90	2.08	1.62	1.42	0.98	2.38	3.43	2.32	1.90	14
Other Diseases of the Stomach ..	0.47	0.71	0.13	0.05	0.01	1.11	0.34	0.19	..	..
Diarrhœa and Enteritis	16.99	15.01	3.26	2.07	1.09	19.18	8.39	4.26	1.62	12
Hernia and Intestinal Obstruction..	0.72	0.57	0.41	0.19	0.23	0.47	0.17	0.39	0.27	2
Congenital Malformations ..	2.99	3.74	4.23	4.63	3.50	3.64	4.28	4.06	2.98	22
Congenital Debility (b) ..	22.41	7.64	2.60	1.98	0.34	9.51	7.19	3.48	0.27	2
Premature Birth ..		15.29	14.04	12.41	8.50	20.93	21.92	18.00	14.51	107
Injury at Birth	4.07	5.53	2.81	4.27	3.21	1.90	3.08	5.23	4.47	33
Other Diseases of Early Infancy			3.29	4.14	2.55	2.69	3.77	4.45	2.44	18
Other Causes	5.58	4.16	3.29	3.13	2.24	6.98	5.82	7.55	2.85	21
Total	68.49	65.73	42.14	39.72	25.31	84.83	68.65	58.83	34.45	254

(a) Included in figures for all children. (b) Includes Icterus and Sclerema prior to 1931.

Until a more detailed analysis of the effect of changing from the Fifth to the Sixth Revision of the International List is made it will not be possible to present causes of infant deaths for 1950 comparable to those shown in the table above. A presentation of the 1950 figures showing the totals of the classes of the Sixth Revision is made in the following table :—

CAUSES OF DEATH OF CHILDREN UNDER ONE YEAR: AUSTRALIA, 1950.

Cause of Death.	Age at Death.															
	Under 1 week.	1 week.	2 weeks.	3 weeks.	1 month.(a)	2 months.	3 months.	4 months.	5 months.	6 months.	7 months.	8 months.	9 months.	10 months.	11 months.	Total under 1 year.
Infective and Parasitic Diseases ..	2	4	3	2	6	11	5	7	9	19	8	7	10	12	8	113
Neoplasms	2	..	..	1	1	..	..	4	3	2	2	1	2	..	..	18
Allergic, Endocrine System, Metabolic and Nutritional Diseases ..	2	2	..	1	4	1	3	2	4	2	2	4	1	1	1	30
Diseases of the Blood and Blood-forming Organs	..	..	1	..	..	2	1	1	1	1	1	..	1	1	1	11
Mental, Psychoneurotic, and Personality Disorders	6	2	1	3	3	1	2	3	1	..	1	1	..	1	1	26
Diseases of the Nervous System and Sense Organs	5	3	3	3	11	6	5	13	11	12	13	15	14	14	12	140
Diseases of the Circulatory System	..	..	..	..	..	..	..	..	1	1	2	..	..	..	1	5
Diseases of the Respiratory System	3	..	3	..	57	32	44	33	32	27	22	36	18	19	20	346
Diseases of the Digestive System ..	17	3	1	4	34	27	26	40	24	32	16	8	10	17	7	266
Diseases of the Genito-urinary System	..	..	..	..	4	3	1	..	..	..	..	3	2	..	..	13
Diseases of the Skin and Cellular Tissue	1	..	..	..	1	1	..	..	2	1	..	1	..	..	2	9
Diseases of the Bones and Organs of Movement	..	..	..	..	2	..	..	..	1	1	..	..	..	..	..	4
Congenital Malformations ..	286	63	26	28	77	37	42	24	20	14	9	14	10	12	8	670
Certain Diseases of Early Infancy—																
Without Mention of Immaturity	915	87	46	36	16	13	6	10	6	4	3	2	2	3	4	1,153
With Immaturity	1,627	63	25	9	10	..	1	2	..	..	..	..	..	..	..	1,737
Symptoms and Ill-defined Conditions	9	2	..	..	2	..	2	..	1	..	1	1	2	1	2	23
Accidents, Poisonings and Violence	8	2	2	7	8	11	6	11	3	6	6	7	4	7	13	101
Total	2,883	231	111	94	236	145	144	150	119	122	86	100	76	88	80	4,665

(a) Age 4 weeks (28 days) and under 2 months.

(vi) *Deaths of Ex-nuptial Children under one Year.* The deaths of ex-nuptial children were tabulated by this Bureau for the first time in 1925. The numbers of deaths from various causes of these children in 1949 and the rates in respect of 1925, 1931, 1941 and 1949 are shown in the table on the previous page. In 1950 the rate for all children under one year per 1,000 total births was 24.47 and the death rate of ex-nuptial children per 1,000 ex-nuptial births was 30.17.

Corresponding figures for 1949 may be obtained from *Demography Bulletin* No. 67. Full particulars of the causes of death of ex-nuptial children who died in 1950 aged under one year and also of those under one month are given for each State and Territory in *Demography Bulletin* No. 68. This contains, in addition, detailed information for Australia as to the age at which ex-nuptial children died from each cause of death.

In 1949 pre-natal influences, such as congenital malformations, congenital debility and premature birth, together with injuries at birth and other diseases of early infancy accounted for 182 or 72 per cent., pneumonia for 30 or 12 per cent., and diarrhœa and enteritis for 12 or 5 per cent. of the total deaths of ex-nuptial children under 1 year.

Owing to the change in classifications, figures for 1950 on a basis precisely similar to 1949 figures are not available. Deaths of ex-nuptial children under one year from congenital malformations and "certain diseases of early infancy" (including immaturity where mentioned) accounted for 148 or 67 per cent. of the total deaths of ex-nuptial children under one year in 1950. These figures include deaths from pneumonia and diarrhœa and enteritis under one month of age. At ages one month and over, pneumonia caused eighteen deaths and enteritis sixteen deaths, representing 8 per cent. and 7 per cent., respectively, of the total deaths of ex-nuptial children under one year.

9. **Deaths in Age-groups.**—A distribution into age-groups has been made of the 378,415 deaths which occurred in Australia during the five years ended 1950, and the results are shown in the following table :—

AGGREGATE DEATHS IN AGE-GROUPS : AUSTRALIA, 1946 TO 1950.

Age-group (Years).	Number of Deaths.			Proportion of Total Deaths.		
	Males.	Females.	Persons.	Males.	Females.	Persons.
				%	%	%
Under 1	14,040	10,472	24,512	6.67	6.24	6.48
1–4	3,120	2,391	5,511	1.48	1.42	1.45
5–19	4,515	2,629	7,144	2.14	1.57	1.89
20–39	12,338	9,209	21,547	5.86	5.49	5.69
40–59	42,773	28,060	70,833	20.31	16.72	18.72
60–64	22,577	13,786	36,363	10.72	8.22	9.61
65 and over ..	111,177	101,223	212,400	52.78	60.33	56.13
Age not stated ..	82	23	105	0.04	0.01	0.03
Total ..	210,622	167,793	378,415	100.00	100.00	100.00

A table showing the corresponding percentages in periods of ten years from the year 1901 has been added to show the movement over a longer term. The most striking change is the substantial decrease in the group " under 1 year ". At the other end of the table, the group " 65 years and over " has increased considerably. The percentages in all age-groups under 40 have fallen since 1901, while those in all age-groups from 40 onwards have risen. These changes are due partly to improvement in the efficiency of medical science and partly to changes in the age distribution of the population. The latter changes are themselves in part due to increased length of life made possible by medical science, and in part to changes in the volume of migration and the falling birth-rate :—

PROPORTION OF DEATHS IN EACH AGE-GROUP: AUSTRALIA.
(per cent.)

Period.	Age-group (Years).								
	Under 1.	1–4.	5–19.	20–39.	40–59.	60–64.	65 and over.	Unspecified.	Total.
					MALES.				
1901–10	19.80	5.84	5.84	13.85	19.70	5.71	29.08	0.18	100.00
1911–20	16.44	5.65	5.18	13.44	22.16	6.83	30.11	0.19	100.00
1921–30	13.18	4.35	4.86	11.00	21.76	9.01	35.71	0.13	100.00
1931–40	7.53	2.49	4.02	8.79	21.67	8.95	46.50	0.05	100.00
1941–50	7.01	1.73	2.51	5.72	20.52	10.39	52.09	0.03	100.00
					FEMALES.				
1901–10	21.47	7.28	7.08	16.54	15.67	4.77	27.15	0.04	100.00
1911–20	16.95	6.69	5.92	15.79	17.85	5.31	31.44	0.05	100.00
1921–30	12.98	4.72	4.85	13.59	18.96	7.27	37.61	0.02	100.00
1931–40	7.22	2.66	3.58	10.10	19.11	7.60	49.72	0.01	100.00
1941–50	6.52	1.68	1.94	6.37	17.22	8.04	58.22	0.01	100.00
					PERSONS.				
1901–10	20.51	6.45	6.37	14.99	17.99	5.31	28.26	0.12	100.00
1911–20	16.66	6.09	5.49	14.44	20.32	6.19	30.68	0.13	100.00
1921–30	13.10	4.51	4.85	12.12	20.55	8.26	36.53	0.08	100.00
1931–40	7.40	2.56	3.83	9.36	20.54	8.36	47.92	0.03	100.00
1941–50	6.79	1.71	2.26	6.01	19.04	9.33	54.84	0.02	100.00

10. **Deaths at Single Ages and in Age-groups.**—(i) *General.* The deaths registered in Australia in 1949 and 1950 will be found tabulated in five-yearly age-groups for each State and Territory and in single ages for Australia in *Demography Bulletins* Nos. 67 and 68, respectively. The deaths during the first fifteen years of life have been tabulated there in single ages and for the first year of life in shorter periods. A summary for Australia for 1950 is given in the following table :—

DEATHS AT SINGLE AGES AND IN AGE-GROUPS : AUSTRALIA, 1950.

Age at Death.	Males.	Females.	Persons.	Age at Death.	Males.	Females.	Persons.
Under 1 week.. ..	1,675	1,208	2,883	Total 5– 9 years ..	321	204	525
1 week and under 2 weeks	129	102	231	„ 10–14 „ ..	225	156	381
2 weeks and under 3 „	57	54	111	„ 15–19 „ ..	393	195	588
3 weeks and under 28 days	47	47	94	„ 20–24 „ ..	675	291	966
				„ 25–29 „ ..	562	345	907
				„ 30–34 „ ..	581	394	975
Total under 28 days	1,908	1,411	3,319	„ 35–39 „ ..	798	624	1,422
				„ 40–44 „ ..	1,138	831	1,969
28 days and under 3 months	225	156	381	„ 45–49 „ ..	1,625	1,075	2,700
3 months and under 6 „	225	188	413	„ 50–54 „ ..	2,377	1,514	3,891
6 months and under 12 „	303	249	552	„ 55–59 „ ..	3,446	2,088	5,534
				„ 60–64 „ ..	4,799	2,845	7,644
				„ 65–69 „ ..	5,379	3,599	8,978
Total under 1 year..	2,661	2,004	4,665	„ 70–74 „ ..	5,500	4,292	9,792
				„ 75–79 „ ..	5,151	4,747	9,898
				„ 80–84 „ ..	4,145	4,422	8,567
				„ 85–89 „ ..	2,469	3,052	5,521
1 year	275	238	513	„ 90–94 „ ..	661	1,074	1,735
2 years	168	90	258	„ 95–99 „ ..	118	225	343
3 „	120	85	205	„ 100 and over ..	12	21	33
4 „	98	50	148	Age not stated ..	23	6	29
Total under 5 years	3,322	2,467	5,789	Total all ages ..	43,720	34,467	78,187

(ii) *Rates.* The following table gives the average annual death-rates in age-groups per 1,000 of the population at 30th June, 1947, for the period 1946 to 1948, i.e., the Census year 1947 and the years immediately preceding and following. Deaths in the Northern Territory and the Australian Capital Territory are included in the total for Australia but not in any of the States. Similar details for the years 1932 to 1934 are given in Official Year Book No. 37, p. 778.

AVERAGE ANNUAL DEATH-RATES : AGE-GROUPS, 1946–48.

Age-group (Years).	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
			MALES.				
0– 4 ..	9.80	8.18	9.39	8.08	9.32	9.13	9.11
5– 9 ..	0.93	0.85	0.90	1.00	0.89	1.15	0.92
10–14 ..	0.78	0.70	0.99	0.66	0.61	0.67	0.77
15–19 ..	1.43	1.25	1.53	1.46	1.45	1.62	1.41
20–24 ..	1.61	1.64	2.97	1.42	2.18	2.10	1.72
25–29 ..	1.54	1.58	2.16	1.59	1.96	2.12	1.70
30–34 ..	1.94	1.86	2.43	1.88	2.29	2.27	2.02
35–39 ..	2.68	2.43	3.05	2.41	2.46	3.10	2.65
40–44 ..	4.24	3.88	4.55	3.65	4.15	3.93	4.12
45–49 ..	7.25	6.32	7.35	6.11	6.25	5.88	6.79
50–54 ..	12.01	10.93	11.56	10.76	11.45	9.52	11.42
55–59 ..	18.57	16.98	17.83	16.25	17.21	16.98	17.68
60–64 ..	28.82	27.08	27.20	26.04	26.26	23.87	27.54
65–69 ..	44.08	42.18	41.15	40.14	40.25	41.82	42.45
70–74 ..	64.76	64.27	64.46	60.98	60.96	58.43	63.72
75–79 ..	100.79	100.40	96.25	97.77	98.74	103.22	99.68
80–84 ..	150.89	147.72	149.92	145.27	149.45	156.64	149.29
85–89 ..	230.47	228.78	233.66	224.18	222.41	256.56	230.19
90 and over	352.09	340.39	353.90	353.49	376.24	434.21	353.03

AVERAGE ANNUAL DEATH-RATES : AGE-GROUPS, 1946–48—*continued.*

Age-group (Years).	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
			FEMALES.				
0– 4 ..	7.32	6.40	7.55	7.12	7.92	7.24	7.14
5– 9 ..	0.65	0.61	0.84	0.55	0.50	0.69	0.64
10–14 ..	0.55	0.48	0.54	0.40	0.63	0.39	0.52
15–19 ..	0.61	0.66	0.79	0.73	0.65	1.46	0.70
20–24 ..	0.93	1.10	1.31	1.05	1.15	1.79	1.08
25–29 ..	1.49	1.37	1.62	1.65	1.54	1.74	1.50
30–34 ..	1.70	1.65	2.26	1.90	1.55	1.90	1.78
35–39 ..	2.40	2.16	2.84	2.02	2.58	2.59	2.38
40–44 ..	3.30	3.05	3.73	3.46	3.11	3.51	3.29
45–49 ..	4.83	4.81	5.17	4.60	5.09	4.66	4.86
50–54 ..	7.75	7.86	7.55	7.12	6.81	7.84	7.64
55–59 ..	10.58	11.00	10.97	10.34	10.08	10.03	10.69
60–64 ..	16.91	16.92	15.70	14.97	16.13	17.30	16.52
65–69 ..	26.69	27.10	24.91	25.25	24.56	27.35	26.34
70–74 ..	45.61	45.83	42.82	42.17	40.75	49.47	44.85
75–79 ..	75.11	77.96	73.20	71.95	74.21	77.00	75.57
80–84 ..	127.63	127.91	128.69	121.57	117.55	123.49	126.50
85–89 ..	197.30	201.38	205.74	192.69	187.50	198.35	198.78
90 and over	320.38	306.09	342.18	292.43	273.81	317.76	312.54
			PERSONS.				
0– 4 ..	8.59	7.31	8.49	7.61	8.64	8.21	8.15
5– 9 ..	0.79	0.73	0.87	0.78	0.70	0.92	0.78
10–14 ..	0.67	0.59	0.77	0.53	0.62	0.53	0.65
15–19 ..	1.03	0.96	1.17	1.10	1.05	1.54	1.06
20–24 ..	1.27	1.37	1.70	1.23	1.67	1.94	1.40
25–29 ..	1.52	1.47	1.90	1.62	1.74	1.93	1.60
30–34 ..	1.82	1.75	2.35	1.89	1.92	2.09	1.90
35–39 ..	2.54	2.29	2.95	2.21	2.51	2.85	2.52
40–44 ..	3.78	3.47	4.17	3.56	3.69	3.73	3.72
45–49 ..	6.04	5.56	6.31	5.36	5.73	5.28	5.84
50–54 ..	9.81	9.33	9.59	8.84	9.22	8.65	9.48
55–59 ..	14.59	13.90	14.59	13.24	13.80	13.44	14.19
60–64 ..	22.78	21.71	21.71	20.32	21.35	20.53	21.94
65–69 ..	35.02	34.00	33.14	32.22	32.58	34.56	34.05
70–74 ..	54.40	53.87	53.44	50.71	50.78	53.80	53.52
75–79 ..	86.75	87.62	84.56	83.24	86.62	89.78	86.53
80–84 ..	138.08	136.24	139.18	131.40	133.24	138.41	136.64
85–89 ..	211.40	212.11	219.04	205.12	204.10	222.49	211.97
90 and over	332.35	318.37	347.45	314.38	312.27	366.12	327.92

11. **Deaths of Centenarians.**—In issues of the Official Year Book up to and including No. 33, particulars were given concerning persons aged 100 years and upwards who died each year. However, while the Registrars-General of the various States verify the ages as far as possible, absolute reliance cannot be placed on the accuracy of the information, owing to the well-known tendency of very old people to overstate their ages, and it was considered advisable to discontinue publication of this table. In connexion with this question it may be noted that while parish registers in the United Kingdom often date very far back, compulsory registration of births dates practically from 1874 only, the Act of 1836 having left many loopholes for those unwilling to register the births of their children.

12. **Length of Residence in Australia of Persons who Died.**—Since 1940 the tabulation respecting the length of residence in Australia of all persons whose deaths were registered during the year has been discontinued. Details for the year 1940 appear in Official Year Book No. 37, pp. 779–80.

13. **Birthplaces of Persons who Died.**—A table giving a summary of birthplaces of persons whose deaths were registered in 1911 and 1940 will be found in Official Year Book

No. 34, p. 337. More detailed information will be found in *Demography Bulletin* No. 58. Tabulations were discontinued for the years 1941 to 1945 inclusive, but were revived for 1946. Details for 1950 appear in *Demography Bulletin* No. 68.

14. **Occupation of Males who Died.**—A table showing occupations of males who died during 1950 appears in *Demography Bulletin* No. 68.

15. **Causes of Death.**—The classification of causes of death adopted for Australia by the Commonwealth Bureau of Census and Statistics at the inception of its mortality statistics in 1907 was that introduced by the International Institute of Statistics in 1893, reviewed by that Institute in 1899 and revised by an International Commission in 1900. This classification became known as the International List of Causes of Death and further revisions by International Commissions in 1909 (Second), 1920 (Third), 1929 (Fourth) and 1938 (Fifth) were successively adapted for use in Australian statistics.

Proposals for the Fourth and Fifth revisions were drafted by a "Mixed Commission" of representatives of the International Statistical Institute and the Health Organization of the League of Nations and the final revision was carried out by the International Conference for the Revision of the International List of Causes of Death. Preparatory work in connexion with the Sixth Revision was entrusted by the International Health Conference in 1946 to the Interim Commission of the World Health Organization. As a result of this arrangement the World Health Organization compiled the International Statistical Classification of Diseases, Injuries and Causes of Death, which in its final stages was unanimously approved by the International Conference for the Sixth Revision of the International Lists of Diseases and Causes of Death in April, 1948. This classification was adopted by the First World Health Assembly, which also issued Regulations to guide member states in its application. Australia adopted the classification, together with the rules for using it, for use commencing with the year 1950.

For the first time in connexion with the International List, international rules for a uniform method of selecting the main cause to be tabulated, if more than one cause is stated on the death certificate, have been laid down, as well as the new classifications of causes of death. Prior to 1950 the rules adopted in Australia for the selection of the cause of death to be tabulated were those laid down in the United States Manual of Joint Causes of Death, first published in 1914 and revised to conform with successive revisions of the International List.

The adoption of the new method marked a fundamental change in Australian cause of death statistics, with emphasis now placed on the underlying cause of death as indicated by the certifying practitioner. The introduction of this method required the adoption by all States of a form of medical certificate substantially identical with the International Form of Medical Certificate of Cause of Death as laid down in Article 9 of the World Health Organization Regulations No. 1. By 1950 all States had adopted satisfactory forms of certificate and it was possible to apply the new principles uniformly to all State cause of death records.

This change in principle affects the comparability of the 1950 statistics with those of past years. For convenience in assessing the extent of the change and in accordance with a recommendation of the Sixth Decennial Revision Conference, causes of death for Australia for 1950 were also classified according to the detailed classification of the Fifth Revision, 1938, on the joint cause rules current for that revision. A complete detailed classification according to both the Fifth and Sixth Revisions is shown in *Demography Bulletin* No. 68.

In the cause of death tables A to E which follow, use has been made of the Intermediate and Abridged forms of the International List (Fifth Revision), the origin of which was explained in Year Book No. 38, page 625. For convenience in compilation and to complete the five-year period 1946 to 1950 on a uniform basis, the 1950 figures used in these tables are those compiled according to the Fifth Revision.

The compilations for the years 1946 to 1950 will be found in full detail in *Demography Bulletins* Nos. 64 to 68. In the following tables A, B, and C, in which the intermediate classification has been employed, deaths are shown of males, females and persons, respectively, for 1950. Table D shows, in the abridged form, the number of persons who died in each of the years 1946 to 1950 and gives the rate per million of population for the last-named year.

Since death-rates are subject to continual fluctuation, it is unsafe to base deductions on the figures relating to a single year. In order, therefore, to furnish a valid basis for comparison, three five-yearly periods have been shown in table E, giving the number of deaths and the rates per million persons.

A.—CAUSES OF DEATH : MALES, 1950.

INTERMEDIATE CLASSIFICATION (BASED ON THE FIFTH REVISION OF THE INTERNATIONAL LIST).

(Figures in parentheses indicate the abridged classification number in each instance.)

Cause of Death.	General Classification Numbers.	N.S.W.	Vic.	Q'land	S. Aust.	W. Aus.	Tas.	N.T.	A.C.T.	Aust.
1. Typhoid and Paratyphoid Fevers (1)	1, 2	2	..	..	..	..	..	..	..	2
2. Plague (2)	3	..	..	..	..	..	..	..	..	..
3. Scarlet Fever (3)	8	..	..	..	..	..	..	..	..	..
4. Whooping Cough (4)	9	3	1	7	1	4	1	..	..	17
5. Diphtheria (5)	10	13	7	6	1	3	..	..	..	30
6. Tuberculosis of the Respiratory System (6)	13	474	285	162	85	94	25	2	1	1,128
7a. Tubercular Meningitis (7a)	14 (a)	12	2	2	2	..	4	..	..	22
7b. Other forms of Tuberculosis (7b)	14 (b)–22	11	17	9	3	1	1	..	..	42
Total, Tuberculosis	..	*497*	*304*	*173*	*90*	*95*	*30*	*2*	*1*	*1,192*
8. Septicæmia, Purulent Infection (Non-puerperal) (14)	24	11	9	2	7	8	1	..	..	38
9. Dysentery (14)	27	7	..	6	1	1	..	..	..	15
10. Malaria (8)	28	1	1	..	..	1	..	..	..	3
11. Syphilis (9)	30	76	77	33	18	18	6	..	..	228
12a. Influenza—Pneumonic (10a)	33 (a)	43	26	15	9	9	5	1	..	108
12b. Influenza—Other (10b)	33 (b)	20	10	6	2	9	5	..	1	53
13. Small-pox (11)	34	..	..	..	..	..	..	..	..	..
14. Measles (12)	35	12	3	7	4	3	..	..	..	29
15. Typhus Fever (13)	39	..	..	2	..	..	..	..	..	2
16. Diseases caused by Helminths (14)	40–42	7	11	2	4	..	3	..	..	27
17. Other Infectious and Parasitic Diseases (14)	*	124	80	48	19	19	9	1	1	301
18. Cancer of the Buccal Cavity and Pharynx (15)	45	85	70	27	21	19	6	..	..	228
19. Cancer of the Digestive Organs and Peritoneum (15)	46	1,041	728	373	226	181	83	1	..	2,633
20. Cancer of the Respiratory System (15)	47	296	206	109	45	60	20	1	..	737
22. Cancer of the Breast (15)	50	2	3	1	1	..	..	..	..	7
23. Cancer of Other or Unspecified Organs (15)	49, 51–55	598	477	231	150	100	50	..	3	1,609
Total, Cancer	..	*2,022*	*1,484*	*741*	*443*	*360*	*159*	*2*	*3*	*5,214*
24. Non-malignant Tumours or Tumours of Unspecified Nature (16)	56, 57	86	21	39	8	11	3	..	..	168
25. Acute Rheumatic Fever (20)	58	16	15	12	2	2	3	..	..	50
26. Chronic Rheumatism and Gout (17)	59, 60	12	18	6	5	3	..	..	..	44
27. Diabetes Mellitus (18)	61	193	153	54	45	51	15	..	1	512
28. Diseases of the Thyroid and Parathyroid Glands (20)	63	13	1	6	4	1	5	..	..	30
29. Other General Diseases (20)	62, 64–66	22	9	6	7	3	..	..	..	47
30. Avitaminoses (20)	67–71	5	1	..	..	1	1	..	..	8
31. Anæmias (20)	73	36	38	21	6	10	4	..	..	115
32. Leucæmias, Pseudoleucæmias, and other Diseases of the Blood and Blood-making Organs (20)	72, 74–76	93	71	32	28	17	4	..	..	245
33. Alcoholism (acute or chronic) (19)	77	73	23	26	14	7	..	..	..	143
34. Other Chronic Poisonings (20)	78, 79	4	1	..	1	..	..	..	..	6
35. Meningitis (Non-meningococcal) (21)	81	24	22	6	4	2	3	..	..	61
36. Diseases of the Spinal Cord (21)	82	41	31	13	11	6	5	..	..	107
37. Intra-cranial Lesions of Vascular Origin (22)	83	1,602	978	545	342	212	101	2	3	3,785
38. Mental Diseases and Deficiency (23)	84	16	10	9	5	9	2	..	..	51
39. Epilepsy (23)	85	45	39	9	7	11	3	1	..	115
40. Other Diseases of the Nervous System (23)	80, 86, 87	122	79	52	32	13	7	..	..	305
41. Diseases of the Eye, Ear and their Annexa (23)	88, 89	9	9	8	1	5	1	..	..	33
42. Pericarditis (24)	90	7	6	2	2	2	1	..	..	20
43. Chronic Affections of the Valves and Endocardium (24)	92	210	179	100	66	47	21	1	..	624
44. Diseases of the Myocardium (24)	93	3,280	2,108	927	588	481	200	14	6	7,604
45. Diseases of the Coronary Arteries and Angina Pectoris (24)	94	2,488	1,612	811	565	394	188	6	14	6,078
46. Other Diseases of the Heart (24)	91, 95	407	149	53	32	21	16	..	1	679
Total, Heart Diseases	..	*6,392*	*4,054*	*1,893*	*1,253*	*945*	*426*	*21*	*21*	*15,005*

* No. 17 :—4–7, 11, 12, 23, 25, 26, 29, 31, 32, 36–38, 43, 44.

A.—CAUSES OF DEATH: MALES, 1950—*continued.*

INTERMEDIATE CLASSIFICATION (BASED ON THE FIFTH REVISION OF THE INTERNATIONAL LIST).

(Figures in parentheses indicate the abridged classification number in each instance.)

Cause of Death.	General Classification Numbers.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aus.	Tas.	N.T.	A.C.T.	Aust.
47. Arteriosclerosis and Gangrene (25)	97, 98	249	224	85	49	67	38	1	..	713
48. Other Diseases of the Circulatory System (25)	96, 99–103	166	53	68	26	21	3	1	..	338
49*a*. Acute Bronchitis (26*a*) ..	106 (*a*)(*c*)	42	26	19	8	6	2	..	..	103
49*b*. Chronic Bronchitis (26*b*) ..	106 (*b*)(*d*)	164	126	67	20	21	11	..	2	411
50. Pneumonia and Broncho-pneumonia (27)	107–109	682	538	259	151	155	70	6	3	1,864
51. Pleurisy (28)	110	20	18	6	5	1	4	..	..	54
52. Other Diseases of the Respiratory System (except Tuberculosis) (28)	104, 105, 111–114	214	147	103	55	33	14	..	..	566
53. Ulcer of the Stomach and Duodenum (32*b*)	117	190	121	73	51	34	14	2	3	488
54. Diarrhœa and Enteritis (under 2 years of age) (29*a*) ..	119	69	21	11	36	14	2	3	..	156
55. Diarrhœa and Enteritis (2 years and over) (29*b*)	120	40	31	18	11	3	2	..	1	106
56. Appendicitis (30)	121	45	33	29	6	6	2	..	..	121
57. Hernia, Intestinal Obstruction (32*a*)	122	138	97	57	28	17	7	..	1	345
58. Cirrhosis of the Liver (31*a*) ..	124	126	85	31	33	18	10	3	1	307
59. Other Diseases of the Liver and Biliary Passages, including Biliary Calculi (31*b*) ..	125–127	56	48	28	17	16	9	1	1	176
60. Other Diseases of the Digestive System (32*b*)	*	90	49	32	17	15	5	..	1	209
61. Nephritis (33)	130–132	594	577	269	110	121	69	1	2	1,743
62. Other Diseases of the Kidneys and Ureters (34)	133	56	42	23	12	7	4	..	..	144
63. Calculi of the Urinary Passages (34)	134	17	11	8	4	4	2	..	..	46
64. Diseases of the Urinary Bladder (34)	135	15	6	5	2	..	..	..	1	29
65. Diseases of the Urethra, Urinary Abscess, etc. (34)	136	8	9	3	1	3	1	..	..	25
66. Diseases of the Prostate (34) ..	137	175	226	102	58	40	26	..	..	627
67. Diseases of the Genital Organs, not specified as Venereal (34)	138, 139	2	1	..	1	..	..	..	..	4
73. Diseases of the Skin and Cellular Tissue (37)	151–153	19	6	7	2	6	1	..	..	41
74. Diseases of the Bones and Organs of Locomotion (except Tuberculosis and Rheumatism) (37)	154–156	14	11	7	2	4	2	..	..	40
75. Congenital Malformations (Still-births not included) (38) ..	157	177	110	71	46	43	18	2	1	468
76. Congenital Debility (38) ..	158	21	3	3	5	6	2	..	..	40
77. Premature Birth (38)	159	369	196	129	80	51	23	3	8	859
78. Injury at Birth (38)	160	175	76	80	24	37	15	..	2	409
79. Other Diseases Peculiar to the First Year of Life (38) ..	161	101	64	44	23	22	16	..	..	270
0. Senility (39)	162	397	219	141	103	30	6	1	..	897
1. Suicide (40)	163, 164	225	134	85	45	57	17	3	1	567
2. Homicide (41)	165–168	21	14	10	2	5	1	..	..	53
3. Automobile Accidents (42) ..	170	475	478	173	152	140	48	9	7	1,482
4. Other Violent or Accidental Deaths (43)	169, 171–195	708	369	310	143	178	70	13	1	1,792
Total, Accidents	..	*1,183*	*847*	*483*	*295*	*318*	*118*	*22*	*8*	*3,274*
5. Deaths due to Operations of War (43)	196, 197	..	..	..	..	..	..	..	..	..
6. Legal Executions (43) ..	198	..	..	..	1	..	..	..	..	1
7. Ill-defined or Unspecified (44) ..	199, 200	63	26	19	18	2	2	4	3	137
Total Males	..	17,565	11,781	6,160	3,721	3,022	1,318	83	70	43,720

* No. 60:—115, 116, 118, 123, 128, 129.

B.—CAUSES OF DEATH : FEMALES, 1950.

INTERMEDIATE CLASSIFICATION (BASED ON THE FIFTH REVISION OF THE INTERNATIONAL LIST).

(Figures in parentheses indicate the abridged classification number in each instance.)

Cause of Death.	General Classification Numbers.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aus.	Tas.	N.T.	A.C.T.	Aust.
1. Typhoid and Paratyphoid Fevers (1)	1, 2	2	..	..	..	1	..	..	..	3
2. Plague (2)	3	..	..	..	..	..	..	..	..	..
3. Scarlet Fever (3)	8	1	2	..	..	..	..	..	..	3
4. Whooping Cough (4)	9	4	..	6	..	7	..	..	..	17
5. Diphtheria (5)	10	12	4	2	..	4	1	..	..	23
6. Tuberculosis of the Respiratory System (6)	13	178	117	49	34	35	42	2	1	458
7a. Tubercular Meningitis (7a) ..	14 (a)	8	10	3	5	..	1	..	..	27
7b. Other Forms of Tuberculosis (7b)	14(b)–22	6	12	3	5	2	2	..	..	30
Total, Tuberculosis ..	..	*192*	*139*	*55*	*44*	*37*	*45*	*2*	*1*	*515*
8. Septicæmia, Purulent Infection (Non-puerperal) (14) ..	24	5	3	1	4	1	..	..	..	14
9. Dysentery (14)	27	4	7	6	..	1	..	..	..	18
10. Malaria (8)	28	1	..	..	..	..	..	..	..	1
11. Syphilis (9)	30	23	25	7	3	4	5	..	..	67
12a. Influenza—Pneumonic (10a) ..	33 (a)	47	18	14	12	6	7	..	..	104
12b. Influenza—Other (10b) ..	33 (b)	25	17	4	2	3	3	..	..	54
13. Small-pox (11)	34	..	..	..	..	..	..	..	..	..
14. Measles (12)	35	14	5	8	1	3	1	..	..	32
15. Typhus Fever (13)	39	..	..	1	..	..	..	..	..	1
16. Diseases caused by Helminths (14)	40–42	5	8	1	3	1	1	..	..	19
17. Other Infectious and Parasitic Diseases (14)	*	83	49	22	18	12	7	..	..	191
18. Cancer of the Buccal Cavity and Pharynx (15)	45	23	19	9	4	1	4	..	..	60
19. Cancer of the Digestive Organs and Peritoneum (15) .	46	849	710	252	184	126	69	..	6	2,196
20. Cancer of the Respiratory System (15)	47	65	52	16	12	13	3	..	..	161
21. Cancer of the Uterus (15) ..	48	222	168	59	57	35	19	..	2	562
22. Cancer of the Breast (15) ..	50	388	310	118	95	66	26	1	1	1,005
23. Cancer of Other or Unspecified Organs (15)	49, 51–55	356	330	134	78	60	40	..	2	1,000
Total, Cancer	..	*1,903*	*1,589*	*588*	*430*	*301*	*161*	*1*	*11*	*4,984*
24. Non-malignant Tumours or Tumours of Unspecified Nature (16)	56, 57	110	40	38	25	17	10	..	..	240
25. Acute Rheumatic Fever (20) ..	58	20	6	4	3	6	..	..	..	39
26. Chronic Rheumatism and Gout (17)	59, 60	41	28	11	14	5	4	..	..	103
27. Diabetes Mellitus (18)	61	359	318	121	98	56	42	..	1	995
28. Diseases of the Thyroid and Parathyroid Glands (20) ..	63	41	21	13	12	4	3	..	1	95
29. Other General Diseases (20) ..	62, 64–66	26	14	9	2	9	..	..	..	60
30. Avitaminoses (20)	67–71	2	1	..	2	..	..	..	..	5
31. Anæmias (20)	73	63	50	26	10	3	4	..	1	157
32. Leucæmias, Pseudoleucæmias, and other Diseases of the Blood and Blood-making Organs (20)	72, 74–76	76	70	35	15	9	5	..	1	211
33. Alcoholism (acute or chronic) (19)	77	28	9	7	3	1	..	..	..	48
34. Other Chronic Poisonings (20) ..	78, 79	..	..	5	..	..	..	..	..	5
35. Meningitis (Non-meningococcal) (21)	81	28	14	11	3	3	1	..	..	60
36. Diseases of the Spinal Cord (21) ..	82	19	18	6	6	4	..	..	..	53
37. Intra-cranial Lesions of Vascular Origin (22)	83	1,921	1,646	558	468	272	142	..	6	5,013
38. Mental Diseases and Deficiency (23)	84	12	5	5	5	3	2	..	..	32
39. Epilepsy (23)	85	40	15	11	4	4	1	..	..	75
40. Other Diseases of the Nervous System (23)	80, 86, 87	121	91	27	24	15	11	..	..	289
41. Diseases of the Eye, Ear and their Annexa (23)	88, 89	9	6	5	2	3	..	..	..	25
42. Pericarditis (24)	90	2	..	1	2	1	1	..	..	7
43. Chronic Affections of the Valves and Endocardium (24) ..	92	179	170	66	71	36	17	1	..	540
44. Diseases of the Myocardium (24)	93	2,552	1,985	705	551	369	199	..	5	6,366
45. Diseases of the Coronary Arteries and Angina Pectoris (24) ..	94	1,152	919	335	271	190	78	..	4	2,949
46. Other Diseases of the Heart (24)	91, 95	201	134	44	24	9	18	..	1	431
Total, Heart Diseases ..	..	*4,086*	*3,208*	*1,151*	*919*	*605*	*313*	*1*	*10*	*10,293*
47. Arteriosclerosis and Gangrene (25)	97, 98	296	350	68	68	53	33	..	..	868
48. Other Diseases of the Circulatory System (25)	96, 99–103	128	78	53	18	10	14	..	..	301

* No. 17 :—4–7, 11, 12, 23, 25, 26, 29, 31, 32, 36–38, 43, 44.

B.—CAUSES OF DEATH : FEMALES, 1950—*continued.*

INTERMEDIATE CLASSIFICATION (BASED ON THE FIFTH REVISION OF THE INTERNATIONAL LIST).

(Figures in parentheses indicate the abridged classification number in each instance.)

Cause of Death.	General Classification Numbers.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aus.	Tas.	N.T.	A. C. T.	Aust.
49*a*. Acute Bronchitis (26*a*) ..	106 (*a*) (*c*)	32	18	5	9	1	..	..	..	65
49*b*. Chronic Bronchitis (26*b*) ..	106 (*b*) (*d*)	71	52	35	15	7	4	..	..	184
50. Pneumonia and Broncho-pneumonia (27)	107–109	521	498	178	123	94	69	..	3	1,486
51. Pleurisy (28)	110	8	11	2	..	1	..	..	..	22
52. Other Diseases of the Respiratory System (except Tuberculosis) (28)	104, 105, 111–114	154	124	56	39	20	13	1	1	408
53. Ulcer of the Stomach and Duodenum (32*b*)	117	26	45	16	12	8	3	..	1	111
54. Diarrhœa and Enteritis (under 2 years of age) (29*a*) ..	119	61	14	10	17	14	..	..	1	117
55. Diarrhœa and Enteritis (2 years and over) (29*b*)	120	31	34	18	5	9	8	..	..	105
56. Appendicitis (30)	121	29	15	8	7	9	4	..	..	72
57. Hernia, Intestinal Obstruction (32*a*)	122	111	55	40	24	11	6	..	2	249
58. Cirrhosis of the Liver (31*a*) ..	124	47	63	16	9	10	2	..	1	148
59. Other Diseases of the Liver and Biliary Passages, including Biliary Calculi (31*b*) ..	125–127	88	105	42	21	18	10	..	1	285
60. Other Diseases of the Digestive System (32*b*)	*	69	49	23	14	10	5	..	..	170
61. Nephritis (33)	130–132	537	525	213	61	83	61	1	2	1,483
62. Other Diseases of the Kidneys and Ureters (34)	133	42	34	17	7	5	2	..	1	108
63. Calculi of the Urinary Passages (34)	134	12	8	6	1	2	..	..	..	29
64. Diseases of the Urinary Bladder (34)	135	4	2	1	7	..	..	..	..	14
65. Diseases of the Urethra, Urinary Abscess, etc. (34)	136	..	1	..	..	..	..	..	..	1
67. Diseases of the Genital Organs not specified as Venereal or connected with Pregnancy, etc. (34)	138, 139	21	15	6	4	10	2	..	..	58
68. Diseases and Accidents of Pregnancy (36)	142–145	17	17	23	6	4	3	..	..	70
69. Abortion, without mention of Infection (36)	141	2	3	3	1	..	2	..	..	11
70. Abortion, with mention of Infection (35*a*)	140	12	8	1	1	1	..	..	..	23
71. Infection during Child-birth and the Puerperium (35*b*) ..	147	13	4	3	1	5	..	..	..	26
72. Other Accidents and Diseases of Child-birth and the Puerperium (36)	146, 148–150	36	11	12	11	3	3	2	1	79
73. Diseases of the Skin and Cellular Tissue (37) ..	151–153	14	12	9	2	3	1	..	..	41
74. Diseases of the Bones and Organs of Locomotion (except Tuberculosis and Rheumatism) (37)	154–156	11	7	4	3	1	..	..	..	26
75. Congenital Malformations (Still-births not included) (38) ..	157	155	112	74	35	18	17	..	1	412
76. Congenital Debility (38) ..	158	10	1	3	1	..	2	..	..	17
77. Premature Birth (38)	159	265	130	110	69	47	30	3	2	656
78. Injury at Birth (38)	160	95	56	47	19	30	8	..	..	255
79. Other Diseases peculiar to the First Year of Life (38) ..	161	74	59	19	19	19	9	..	1	200
80. Senility (39)	162	515	291	136	134	18	28	..	..	1,122
81. Suicide (40)	163, 164	92	52	25	10	11	3	..	..	193
82. Homicide (41)	165–168	12	7	4	3	4	..	1	..	31
83. Automobile Accidents (42) ..	170	106	81	43	33	19	2	1	..	285
84. Other Violent or Accidental Deaths (43)	169, 171–195	325	175	143	75	77	33	..	..	828
Total, Accidents	..	*431*	*256*	*186*	*108*	*96*	*35*	*1*	..	*1,113*
85. Deaths due to Operations of War (43)	196, 197	..	..	..	..	..	..	..	..	..
86. Legal Executions (43)	198	..	..	..	..	..	..	..	..	..
87. Ill-defined or Unspecified (44) ..	199, 200	35	12	9	3	1	2	..	2	64
Total Females	..	13,400	10,560	4,239	3,019	2,036	1,148	13	52	34,467

* No. 60 :—115, 116, 118, 123, 128, 129.

C.—CAUSES OF DEATH : PERSONS, 1950.

INTERMEDIATE CLASSIFICATION (BASED ON THE FIFTH REVISION OF THE INTERNATIONAL LIST).

(Figures in parentheses indicate the abridged classification number in each instance.)

Cause of Death.	General Classification Numbers.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aus.	Tas.	N.T.	A. C. T.	Aust.
1. Typhoid and Paratyphoid Fevers (1)	1, 2	4	..	..	..	1	..	..	..	5
2. Plague (2)	3	..	..	..	..	..	..	..	..	..
3. Scarlet Fever (3)	8	1	2	..	..	..	..	..	..	3
4. Whooping Cough (4)	9	7	1	13	1	11	1	..	..	34
5. Diphtheria (5)	10	25	11	8	1	7	1	..	..	53
6. Tuberculosis of the Respiratory System (6)	13	652	402	211	119	129	67	4	2	1,586
7a. Tubercular Meningitis (7a) ..	14 (a)	20	12	5	7	..	5	..	..	49
7b. Other Forms of Tuberculosis (7b)	14(b)–22	17	29	12	8	3	3	..	..	72
Total, Tuberculosis ..	..	*689*	*443*	*228*	*134*	*132*	*75*	*4*	*2*	*1,707*
8. Septicæmia, Purulent Infection (Non-puerperal) (14) ..	24	16	12	3	11	9	1	..	..	52
9. Dysentery (14)	27	11	7	12	1	2	..	..	..	33
10. Malaria (8)	28	2	1	..	..	1	..	..	..	4
11. Syphilis (9)	30	99	102	40	21	22	11	..	..	295
12a. Influenza (Pneumonic) (10a) ..	33 (a)	90	44	29	21	15	12	1	..	212
12b. Influenza (Other) (10b) ..	33 (b)	45	27	10	4	12	8	..	1	107
13. Small-pox (11)	34	..	..	..	..	..	..	..	..	..
14. Measles (12)	35	26	8	15	5	6	1	..	..	61
15. Typhus Fever (13)	39	..	..	3	..	..	..	..	..	3
16. Diseases caused by Helminths (14)	40–42	12	19	3	7	1	4	..	..	46
17. Other Infectious and Parasitic Diseases (14)	*	207	129	70	37	31	16	1	1	492
18. Cancer of the Buccal Cavity and Pharnyx (15)	45	108	89	36	25	20	10	..	..	288
19. Cancer of the Digestive Organs and Peritoneum (15) ..	46	1,890	1,438	625	410	307	152	1	6	4,829
20. Cancer of the Respiratory System (15)	47	361	258	125	57	73	23	1	..	898
21. Cancer of the Uterus (15) ..	48	222	168	59	57	35	19	..	2	562
22. Cancer of the Breast (15) ..	50	390	313	119	96	66	26	1	1	1,012
23. Cancer of Other or Unspecified Organs (15)	49, 51–55	954	807	365	228	160	90	..	5	2,609
Total, Cancer	..	*3,925*	*3,073*	*1,329*	*873*	*661*	*320*	*3*	*14*	*10,198*
24. Non-malignant Tumours or Tumours of Unspecified Nature (16)	56, 57	196	61	77	33	28	13	..	..	408
25. Acute Rheumatic Fever (20) ..	58	36	21	16	5	8	3	..	..	89
26. Chronic Rheumatism and Gout (17)	59, 60	53	46	17	19	8	4	..	..	147
27. Diabetes Mellitus (18)	61	552	471	175	143	107	57	..	2	1,507
28. Diseases of the Thyroid and Parathyroid Glands (20).. ..	63	54	22	19	16	5	8	..	1	125
29. Other General Diseases (20) ..	62, 64–66	48	23	15	9	12	..	..	..	107
30. Avitaminoses (20)	67–71	7	2	..	2	1	1	..	..	13
31. Anæmias (20)	73	99	88	47	16	13	8	..	1	272
32. Leucæmias, Pseudoleucæmias, and other Diseases of the Blood and Blood-making Organs (20)	72, 74–76	169	141	67	43	26	9	..	1	456
33. Alcoholism (acute or chronic) (19)	77	101	32	33	17	8	..	..	..	191
34. Other Chronic Poisonings (20) ..	78, 79	4	1	5	1	..	..	..	..	11
35. Meningitis (Non-meningococcal) (21)	81	52	36	17	7	5	4	..	..	121
36. Diseases of the Spinal Cord (21) ..	82	60	49	19	17	10	5	..	..	160
37. Intra-cranial Lesions of Vascular Origin (22)	83	3,523	2,624	1,103	810	484	243	2	9	8,798
38. Mental Diseases and Deficiency (23)	84	28	15	14	10	12	4	..	..	83
39. Epilepsy (23)..	85	85	54	20	11	15	4	1	..	190
40. Other Diseases of the Nervous System (23)	80, 86, 87	243	170	79	56	28	18	..	..	594
41. Diseases of the Eye, Ear and their Annexa (23)	88, 89	18	15	13	3	8	1	..	..	58
42. Pericarditis (24)	90	9	6	3	4	3	2	..	..	27
43. Chronic Affections of the Valves and Endocardium (24) ..	92	389	349	166	137	83	38	2	..	1,164
44. Diseases of the Myocardium (24)	93	5,832	4,093	1,632	1,139	850	399	14	11	13,970
45. Diseases of the Coronary Arteries and Angina Pectoris (24) ..	94	3,640	2,531	1,146	836	584	266	6	18	9,027
46. Other Diseases of the Heart (24)	91, 95	608	283	97	56	30	34	..	2	1,110
Total, Heart Diseases ..	..	*10,478*	*7,262*	*3,044*	*2,172*	*1,550*	*739*	*22*	*31*	*25,298*
47. Arteriosclerosis and Gangrene (25)	97, 98	545	574	153	117	120	71	1	..	1,581
48. Other Diseases of the Circulatory System (25)	96, 99–103	294	131	121	44	31	17	1	..	639
49a. Acute Bronchitis (26a) ..	106 (a)(c)	74	44	24	17	7	2	..	..	168

* No. 17:—4–7, 11, 12, 23, 25, 26, 29, 31, 32, 36–38, 43, 44.

C.—CAUSES OF DEATH : PERSONS, 1950—*continued.*

INTERMEDIATE CLASSIFICATION (BASED ON THE FIFTH REVISION OF THE INTERNATIONAL LIST).

(Figures in parentheses indicate the abridged classification number in each instance.)

Cause of Death.	General Classification Numbers.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aus.	Tas.	N.T.	A. C. T.	Aust.
49*b*. Chronic Bronchitis (26*b*) ..	106 (*b*) (*d*)	235	178	102	35	28	15	..	2	595
50. Pneumonia and Broncho-pneumonia (27)	107–109	1,203	1,036	437	274	249	139	6	6	3,350
51. Pleurisy (28)	110	28	29	8	5	2	4	..	..	76
52. Other Diseases of the Respiratory System (except Tuberculosis) (28)	104, 105, 111–114	368	271	159	94	53	27	1	1	974
53. Ulcer of the Stomach and Duodenum (32*b*)	117	216	166	89	63	42	17	2	4	599
54. Diarrhœa and Enteritis (under 2 years of age) (29*a*)	119	130	35	21	53	28	2	3	1	273
55. Diarrhœa and Enteritis (2 years and over) (29*b*)	120	71	65	36	16	12	10	..	1	211
56. Appendicitis (30)	121	74	48	37	13	15	6	..	..	193
57. Hernia, Intestinal Obstruction (32*a*)	122	249	152	97	52	28	13	..	3	594
58. Cirrhosis of the Liver (31*a*) ..	124	173	148	47	42	28	12	3	2	455
59. Other Diseases of the Liver and Biliary Passages, including Biliary Calculi (31*b*) ..	125–127	144	153	70	38	34	19	1	2	461
60. Other Diseases of the Digestive System (32*b*)	*	159	98	55	31	25	10	..	1	379
61. Nephritis (33)	130–132	1,131	1,102	482	171	204	130	2	4	3,226
62. Other Diseases of the Kidneys and Ureters (34)	133	98	76	40	19	12	6	..	1	252
63. Calculi of the Urinary Passages (34)	134	29	19	14	5	6	2	..	..	75
64. Diseases of the Urinary Bladder (34)	135	19	8	6	9	..	...	..	1	43
65. Diseases of the Urethra, Urinary Abscess, etc. (34)	136	8	10	3	1	3	1	..	..	26
66. Diseases of the Prostate (34) ..	137	175	226	102	58	40	26	..	..	627
67. Diseases of the Genital Organs not specified as Venereal or connected with Pregnancy, etc. (34)	138, 139	23	16	6	5	10	2	..	..	62
68. Diseases and Accidents of Pregnancy (36)	142–145	17	17	23	6	4	3	..	..	70
69. Abortion, without mention of Infection (36)	141	2	3	3	1	..	2	..	..	11
70. Abortion, with mention of Infection (35*a*)	140	12	8	1	1	1	..	..	..	23
71. Infection during Child-birth and the Puerperium (35) ..	147	13	4	3	1	5	..	..	..	26
72. Other Accidents and Diseases of Child-birth and the Puerperium (36)	146, 148–150	36	11	12	11	3	3	2	1	79
73. Diseases of the Skin and Cellular Tissue (37)	151–153	33	18	16	4	9	2	..	..	82
74. Diseases of the Bones and Organs of Locomotion (except Tuberculosis and Rheumatism) (37)	154–156	25	18	11	5	5	2	..	..	66
75. Congenital Malformations (Still-births not included) (38) ..	157	332	222	145	81	61	35	2	2	880
76. Congenital Debility (38) ..	158	31	4	6	6	6	4	..	..	57
77. Premature Birth (38)	159	634	326	239	149	98	53	6	10	1,515
78. Injury at Birth (38)	160	270	132	127	43	67	23	..	2	664
79. Other Diseases peculiar to the First Year of Life (38) ..	161	175	123	63	42	41	25	..	1	470
80. Senility (39)	162	912	510	277	237	48	34	1	..	2,019
81. Suicide (40)	163, 164	317	186	110	55	68	20	3	1	760
82. Homicide (41)	165–168	33	21	14	5	9	1	1	..	84
83. Automobile Accidents (42) ..	170	581	559	216	185	159	50	10	7	1,767
84. Other Violent or Accidental Deaths (43)	169, 171–195	1,033	544	453	218	255	103	13	1	2,620
Total, Accidents	..	*1,614*	*1,103*	*669*	*403*	*414*	*153*	*23*	*8*	*4,387*
85. Deaths due to Operations of War (43)	196–197	..	..	..	..	..	..	..	..	..
86. Legal Executions (43)	198	..	..	..	1	..	..	..	..	1
87. Ill-defined or Unspecified (44) ..	199, 200	98	38	28	21	3	4	4	5	201
Total	..	30,965	22,341	10,399	6,740	5,058	2,466	96	122	78,187

* No. 60 :—115, 116, 118, 123, 128, 129.

D.—CAUSES OF DEATH : PERSONS, AUSTRALIA.

ABRIDGED CLASSIFICATION (BASED ON THE FIFTH REVISION OF THE INTERNATIONAL LIST).

Cause of Death.	General Classification Numbers.	1946.	1947.	1948.	1949.	1950.	1950—Rate per 1,000,000 Mean Population
1. Typhoid and Paratyphoid Fevers	1, 2	9	11	11	5	5	1
2. Plague	3	..	..	..	..	..	..
3. Scarlet Fever	8	7	9	6	3	3	..
4. Whooping Cough	9	74	75	65	73	34	4
5. Diphtheria	10	119	88	80	76	53	6
6. Tuberculosis of the Respiratory System ..	13	2,200	2,081	2,008	1,800	1,586	194
7a. Tubercular Meningitis	14 (*a*)	60	45	39	52	49	6
7b. Other Tuberculous Diseases	14*b*–22	133	135	122	112	72	9
8. Malaria	28	9	9	9	2	4	1
9. Syphilis	30	344	393	383	375	295	36
10a. Influenza—Pneumonic	33 (*a*)	120	77	230	64	212	26
10b. Influenza—Other	33 (*b*)	91	74	149	55	107	13
11. Smallpox	34	..	..	..	..	..	..
12. Measles	35	109	36	80	56	61	7
13. Typhus Fever	39	8	7	8	5	3	..
14. Other Infective and Parasitic Diseases ..	*	552	430	483	526	623	76
15. Cancer and other Malignant Tumours ..	45–55	9,118	9,464	9,671	9,930	10,198	1,246
16. Non-malignant Tumours or Tumours of Undetermined Nature	56, 57	457	429	398	386	408	50
17. Chronic Rheumatism and Gout	59, 60	182	159	173	181	147	18
18. Diabetes Mellitus	61	1,396	1,330	1,446	1,473	1,507	184
19. Chronic or Acute Alcoholism	77	109	116	152	119	191	23
20. Avitaminoses, Other General Diseases, etc.	*	1,030	1,005	1,021	990	1,073	131
21. Non-meningococcal Meningitis and Diseases of the Spinal Cord	81, 82	313	309	279	255	281	34
22. Intra-cranial Lesions of Vascular Origin ..	83	7,419	7,515	8,310	8,611	8,798	1,075
23. Other Diseases of the Nervous System and Sense Organs	80, 84–89	794	780	782	718	925	113
24. Diseases of the Heart	90–95	23,022	22,884	24,262	24,118	25,298	3,091
25. Other Diseases of the Circulatory System ..	96–103	2,095	2,004	2,060	1,985	2,220	271
26a. Acute Bronchitis	106 (*a*)(*c*)	142	137	153	125	168	21
26b. Chronic Bronchitis	106 (*b*)(*d*)	475	466	480	469	595	73
27. Pneumonia and Broncho-pneumonia ..	107–109	3,800	3,442	4,030	3,119	3,350	409
28 Other Diseases of the Respiratory System ..	*	985	1,064	1,125	999	1,050	128
29a. Diarrhœa and Enteritis (under two years of age)	119	214	285	335	238	273	33
29b. Diarrhœa and Enteritis (two years and over)	120	200	157	171	147	211	26
30. Appendicitis	121	338	303	236	194	193	24
31a. Cirrhosis of the Liver	124	288	340	395	404	455	56
31b. Other Diseases of the Liver and Biliary Passages	125–127	440	451	451	410	461	56
32a. Hernia, Intestinal Obstruction	122	675	589	602	597	594	73
32b. Other Diseases of the Digestive System ..	*	891	927	982	1,051	978	119
33. Nephritis	130–132	3,563	3,301	3,355	3,191	3,226	394
34. Other Diseases of the Genito-urinary System	133–139	1,088	1,017	1,003	1,005	1,085	133
35a. Post-abortive Sepsis	140	41	56	23	27	23	3
35b. Puerperal Infection	147	56	41	38	24	26	3
36. Other Diseases of Pregnancy, Child-birth and the Puerperium	141–146, 148–150	230	244	189	169	160	20
37. Diseases of the Skin, Bones, etc.	151–156	153	138	122	151	148	18
38. Congenital Debility, Malformations, Premature Birth, etc.	157–161	3,881	3,905	3,624	3,446	3,586	438
39. Senility	162	2,558	2,208	2,349	2,168	2,019	247
40. Suicide	163, 164	732	746	737	773	760	93
41. Homicide	165–168	90	91	88	72	84	10
42. Automobile Accidents	170	1,206	1,269	1,328	1,444	1,767	216
43. Other Accidental or Violent Deaths ..	169, 171–198	2,608	2,645	2,611	2,541	2,621	320
44. Unstated or Ill-defined Causes	199, 200	228	181	185	226	201	25
Total	..	74,661	73,468	76,839	75,260	78,187	9.553

* No. 14 :—4–7, 11, 12, 23–27, 29, 31, 32, 36–38, 40–44 ; No. 20 :—58, 62–76, 78, 79 ; No. 28 :—104, 105, 110–114 ; No. 32*b* :—115–118, 123, 128, 129.

NOTE.—Cause of death statistics for 1950 were compiled in accordance with the rules for selecting the underlying cause which are an integral part of the International Statistical Classification of Diseases, Injuries and Causes of Death (Sixth Revision, 1948, of the International List of Causes of Death) and were tabulated in accordance with the list of three-digit categories of that classification. For the purposes of the table above, however, the causes of death for each year 1946 to 1950 inclusive have been compiled in accordance with the rules of selection formerly in use and are presented on the basis of the Abridged Classification of the Fifth Revision, 1938, of the International List. A complete detailed classification for 1950 according to both Revisions is shown in *Demography Bulletin* No. 68.

E.—CAUSES OF DEATH : PERSONS, AUSTRALIA, NUMBER AND RATES.

ABRIDGED CLASSIFICATION (BASED ON THE FIFTH REVISION OF THE INTERNATIONAL LIST).

Cause of Death.	General Classification Numbers.	Number of Deaths.			Average Annual Rate per 1,000,000 of Mean Population.		
		1936–40.	1941–45.	1946–50.	1936–40.	1941–45	1946–50.
1. Typhoid and Paratyphoid Fevers	1, 2	231	116	41	7	3	1
2. Plague	3	..	..	..	..	..	..
3. Scarlet Fever	8	180	137	28	5	4	1
4. Whooping Cough	9	927	766	321	27	21	8
5. Diphtheria	10	1,605	1,186	416	47	33	11
6. Tuberculosis of the Respiratory System ..	13	12,194	11,677	9,675	354	323	249
7a. Tubercular Meningitis	14 (a)	453	351	245	13	10	6
7b. Other Tuberculous Diseases	14 (b)–22	883	864	574	26	24	15
8. Malaria	28	58	58	33	2	2	1
9. Syphilis	30	1,828	2,006	1,790	53	55	46
10a. Influenza—Pneumonic	33 (a)	1,913	967	703	55	27	18
10b. Influenza—Other	33 (b)	819	717	476	24	20	12
11. Smallpox	34	1	..	..	..	..	..
12. Measles	35	390	407	342	11	11	9
13. Typhus Fever	39	30	50	31	1	1	1
14. Other Infective and Parasitic Diseases ..	*	2,577	3,387	2,614	75	94	67
15. Cancer and other Malignant Tumours ..	45–55	39,477	43,347	48,381	1,145	1,198	1,245
16. Non-malignant Tumours or Tumours of Undetermined Nature	56, 57	2,188	2,152	2,078	63	59	53
17. Chronic Rheumatism and Gout	59, 60	835	814	842	24	23	22
18. Diabetes Mellitus	61	5,953	6,934	7,152	173	192	184
19. Chronic or Acute Alcoholism	77	331	390	687	10	11	18
20. Avitaminoses, Other General Diseases, etc.	*	5,792	5,313	5,119	168	147	132
21. Non-meningococcal Meningitis and Diseases of the Spinal Cord	81, 82	1,773	1,958	1,437	51	54	37
22. Intra-cranial Lesions of Vascular Origin ..	83	26,138	33,574	40,653	758	928	1,046
23. Other Diseases of the Nervous System and Sense Organs	80, 84–89	4,127	4,195	3,999	120	116	103
24. Diseases of the Heart	90–95	78,670	103,176	119,584	2,282	2,852	3,078
25. Other Diseases of the Circulatory System ..	96–103	10,182	9,643	10,364	295	267	267
26a. Acute Bronchitis	106 (a) (c)	921	892	725	27	25	19
26b. Chronic Bronchitis	106 (b) (d)	2,662	2,589	2,485	77	71	64
27. Pneumonia and Broncho-pneumonia ..	107–109	21,125	19,868	18,041	613	549	464
28. Other Diseases of the Respiratory System ..	*	5,021	5,004	5,223	146	138	134
29a. Diarrhœa and Enteritis (under two years of age)	119	1,855	1,752	1,345	54	48	35
29b. Diarrhœa and Enteritis (two years and over)	120	1,598	1,537	895	46	42	23
30. Appendicitis	121	2,641	1,974	1,264	77	55	32
31a. Cirrhosis of the Liver	124	1,501	1,415	1,882	44	39	48
31b. Other Diseases of the Liver and Biliary Passages	125–127	2,388	2,275	2,213	69	63	57
32a. Hernia, Intestinal Obstruction	122	2,911	3,241	3,057	84	90	79
32b. Other Diseases of the Digestive System ..	*	4,896	4,955	4,829	142	137	124
33. Nephritis	130–132	19,206	18,634	16,636	557	515	428
34. Other Diseases of the Genito-urinary System	133–139	6,056	6,055	5,198	176	167	134
35a. Post-abortive Sepsis	140	763	452	170	22	12	4
35b. Puerperal Infection	147	393	393	185	11	11	5
36. Other Diseases of Pregnancy, Child-birth and the Puerperium	141–146, 148–150	1,671	1,416	992	48	39	26
37. Diseases of the Skin, Bones, etc.	151–156	1,669	1,144	712	48	32	18
38. Congenital Debility, Malformations, Premature Birth, etc.	157–161	16,498	18,290	18,442	478	505	475
39. Senility	162	13,757	13,312	11,302	399	368	291
40. Suicide	163, 164	3,780	2,841	3,748	110	79	96
41. Homicide	165–168	459	413	425	13	11	11
42. Automobile Accidents	170	6,862	4,384	7,014	199	121	181
43. Other Accidental or Violent Deaths ..	169, 171–198	12,998	12,475	13,026	377	345	335
44. Unstated or Ill-defined Causes	199, 200	1,224	1,184	1,021	35	33	26
Total	..	332,410	360,680	378,415	9,641	9,970	9,739

* No. 14 :—4–7, 11, 12, 23–27, 29, 31, 32, 36–38, 40–44 ; No. 20 :—58, 62–76, 78, 79 ; No. 28 :—104, 105, 110–114 ; No. 32b :—115–118, 123, 128, 129.

NOTE.—Cause of death statistics for 1950 were compiled in accordance with the rules for selecting the underlying cause which are an integral part of the International Statistical Classification of Diseases, Injuries and Causes of Death (Sixth Revision, 1948, of the International List of Causes of Death) and were tabulated in accordance with the list of three-digit categories of that Classification. For the purposes of the table above, however, the causes of death for all years including 1950 have been compiled in accordance with the rules of selection formerly in use and are presented on the basis of the Abridged Classification of the Fifth Revision, 1938, of the International List. A complete detailed classification for 1950 according to both Revisions is shown in *Demography Bulletin* No. 68.

16. **Deaths from Principal Causes.**—(i) *General.* In the preceding tables particulars have been given for each of the causes of death comprising the Intermediate and the Abridged Classifications according to the Fifth Revision of the International List. The more important of these causes are treated in detail hereunder. Comparison is made in total between the figures for 1950 on the basis of the Fifth and Sixth Revisions of the International List, but in the detailed dissections the 1950 figures are those compiled according to the Sixth Revision. The 1938 Intermediate Classification number used in tables A, B and C is indicated in parentheses for each cause or group of causes.

(ii) *All Forms of Tuberculosis* (6, 7). (*a*) *General.* The total number of deaths classified to all forms of tuberculosis in 1950 in accordance with the methods used in conjunction with the Fifth and Sixth Revisions of the International List were as follows :—

Basis of Classification.	Males.	Females.	Persons.
Fifth Revision	1,192	515	1,707
Sixth Revision	1,172	503	1,675
Difference due to revision	(—) 20	(—) 12	(—) 32

This difference is due to the fact that the former rules of selection gave a degree of preference to tuberculosis when in association with other causes which was not always in accord with the certifying medical practitioners' statement of the underlying cause. This experience is consistent with that in other countries. The figures represent a ratio of 0.98 for deaths classified by the Sixth Revision to those classified by the Fifth Revision.

(*b*) *Age at Death.* The following table shows the age-groups of males, females and persons who were classified under the Sixth Revision as dying from this disease in 1950, together with figures for 1921, 1931 and 1941, classified under former Revisions.

TUBERCULOSIS (ALL FORMS) : DEATHS IN AGE-GROUPS, AUSTRALIA.

Age-group (Years).	1921.			1931.			1941.			1950.		
	Males.	Females.	Persons.	Males.	Females.	Persons.	Males.	Females.	Persons.	Males.	Females.	Persons.
Under 5 ..	90	76	166	57	47	104	42	28	70	16	19	35
5–9 ..	30	28	58	14	14	28	12	10	22	6	6	12
10–14 ..	23	24	47	19	20	39	9	16	25	5	4	9
15–19 ..	72	100	172	45	105	150	30	52	82	9	17	26
20–24 ..	173	194	367	113	183	296	69	91	160	12	34	46
25–29 ..	232	246	478	136	199	335	63	132	195	29	54	83
30–34 ..	237	195	432	191	164	355	125	129	254	43	52	95
35–39 ..	247	178	425	187	156	343	144	111	255	73	61	134
40–44 ..	234	141	375	207	102	309	159	79	238	86	44	130
45–49 ..	223	102	325	197	83	280	180	76	256	116	41	157
50–54 ..	179	69	248	185	62	247	216	64	280	140	21	161
55–59 ..	172	65	237	164	57	221	210	52	262	150	35	185
60–64 ..	118	42	160	128	50	178	187	59	246	154	43	197
65–69 ..	79	32	111	110	38	148	137	39	176	144	23	167
70–74 ..	35	10	45	52	31	83	74	41	115	111	24	135
75–79 ..	18	7	25	27	16	43	48	18	66	54	12	66
80 and over ..	6	7	13	4	4	8	20	12	32	24	13	37
Not stated ..	3	..	3	..	..	..	..	..	..	..	..	..
Total .	2,171	1,516	3,687	1,836	1,331	3,167	1,725	1,009	2,734	1,172	503	1,675

(*c*) ***Occupation at Death, Males.*** **A summary of the main groups of occupations of males who died from tuberculosis during 1950 is given in *Demography Bulletin* No. 68.**

(*d*) ***Length of Residence in Australia.*** **The length of residence in Australia of persons who died from tuberculosis in 1950 (Sixth Revision figures) is given in the next table. Corresponding figures for 1949 (Fifth Revision figures) may be obtained from *Demography Bulletin* No. 67.**

LENGTH OF RESIDENCE IN AUSTRALIA OF PERSONS WHO DIED FROM TUBERCULOSIS (ALL FORMS), 1950.

Length of Residence in Australia.	Males.	Females.	Persons.	Length of Residence in Australia.	Males.	Females.	Persons.
Born in Australia ..	913	437	1,350	Resident 10–14 years ..	10	3	13
Resident under 1 year ..	6	6	12	„ 15–19 „ ..	5	4	9
„ 1 year	4	5	9	„ 20 years & over ..	157	37	194
„ 2 years ..	5	1	6	Length of residence not stated	63	6	69
„ 3 „	4	1	5				
„ 4 „	1	2	3				
„ 5–9 years ..	4	1	5	Total Deaths ..	1,172	503	1,675

(*e*) *Death-rates.* In order to show the relative incidence of tuberculosis in each State and Territory and the improvement which has taken place in recent years, the death-rates from tubercular diseases for 1931, 1941 and 1950 are given in the following table. The rates for 1950 are based on the causes of death compiled according to the Sixth Revision. Corresponding figures for 1949 (on the basis of the Fifth Revision) may be obtained from *Demography Bulletin* No. 67.

TUBERCULOSIS (ALL FORMS): DEATH-RATES.(*a*)

State or Territory.	1931.			1941.			1950.		
	Males.	Females.	Persons.	Males.	Females.	Persons.	Males.	Females.	Persons.
New South Wales	53	37	45	47	24	36	30	12	21
Victoria ..	59	51	55	54	37	45	27	12	20
Queensland ..	45	28	37	40	20	30	30	9	20
South Australia ..	58	56	57	40	34	37	25	13	19
Western Australia	74	40	58	60	25	44	31	14	23
Tasmania ..	61	51	56	48	44	46	19	32	25
Northern Territory	69	..	44	27	35	29	21	36	27
Australian Capital Territory ..	21	25	23	..	15	7	..	10	4
Australia ..	55	42	49	48	29	38	28	12	20

(*a*) Number of deaths from tuberculosis per 100,000 of mean population.

(*f*) *Proportion of Total Deaths.* The following table shows the number of deaths from tuberculosis per 10,000 deaths from all causes in each State and Territory during 1911–20, 1921–30, 1931–40 and 1941–50. Figures have been compiled on a uniform basis for each decennium.

TUBERCULOSIS (ALL FORMS): PROPORTION PER 10,000 TOTAL DEATHS.

State or Territory.	1911–20.			1921–30.			1931–40.			1941–50.		
	Males.	Females.	Persons.	Males.	Females.	Persons.	Males.	Females.	Persons.	Males.	Females.	Persons.
N.S. Wales ..	670	625	651	599	536	572	476	378	434	364	234	307
Victoria ..	718	754	735	695	663	680	485	448	468	385	267	329
Queensland ..	559	480	529	516	406	472	413	323	377	365	196	296
South Australia	757	889	816	713	758	733	498	482	491	333	259	294
Western Aust.	895	728	835	869	643	786	598	401	523	420	214	336
Tasmania ..	646	757	697	640	749	691	537	548	542	417	420	418
Northern Terr.	1,441	745	1,357	1,170	685	1,115	272	541	314	276	579	328
Aust. Cap. Terr.	323	417	364	116	349	194	217	419	293	259	273	264
Australia ..	691	684	688	644	594	622	482	410	450	373	247	316

(*g*) *Death-rates, Various Countries.* The following table shows the death-rates from tuberculosis for Australia and each State in comparison with the rates for various other countries. In order that the rates may be presented uniformly on the basis of the Fifth Revision of the International List, the figures have been restricted to the latest available year on that basis up to and including 1949. The table indicates that Australia occupies a very favourable position as regards the death-rate from this disease.

TUBERCULOSIS : DEATH-RATES (*a*), VARIOUS COUNTRIES.

Country.	Year.	Respiratory System.	All Forms.	Country.	Year.	Respiratory System.	All Forms.
Denmark.. ..	1949	16	19	*Northern Ireland*	1949	47	58
Netherlands ..	1949	18	24	*Scotland* ..	1949	59	67
Australia(*b*) ..	**1949**	**23**	**25**	Belgium	1949	36	49
South Australia(b)	1949	18	21	Italy	1949	37	49
Queensland(b) ..	1949	20	22	Western Germany..	1949	42	50
Western Australia(b)	1949	23	24	Sweden	1947	44	52
New South Wales(b)	1949	23	25	Norway	1948	43	52
Victoria(b) ..	1949	25	27	Egypt	1949	(*e*)	55
Tasmania(b) ..	1949	24	28	Ceylon	1949	53	56
New Zealand(*c*) ..	1949	21	25	France	1949	56	68
U.S. of America ..	1949	24	26	Eire	1949	72	91
Union of South Africa(*d*) ..	1947	26	31	Czechoslovakia ..	1947	(*e*)	96
Canada	1949	27	32	Hungary.. ..	1947	(*e*)	106
Switzerland ..	1949	32	42	Spain	1948	91	114
Great Britain and Northern Ireland	1949	42	48	Finland	1949	111	130
England and Wales ..	1949	40	46	Portugal	1949	126	151
				Japan	1949	141	168

(*a*) Number of deaths per 100,000 of mean population. (*b*) Excludes full-blood aboriginals. (*c*) Excludes Maoris. (*d*) European population only. (*e*) Not available.

(iii) *Malignant Neoplasms, including Neoplasms of Lymphatic and Haematopoietic Tissues.* (*a*) *General.* Deaths classified under this heading in 1950 according to the Sixth Revision are not directly comparable with those classified according to the Fifth Revision, as deaths from Lymphogranulomatosis (Hodgkin's Disease) and Leukaemia and Aleukaemia, which are now embraced within the group of Neoplasms of the Lymphatic and Haematopoietic Tissues, were not formerly included with Neoplasms. Comparison on the adjusted basis is as follows :—

Category Numbers.		Cause of Death.	Basis of Classification.						Comparability Ratio.
			Fifth Revision.			Sixth Revision.			
Fifth Revision.	Sixth Revision.		M.	F.	P.	M.	F.	P.	
45–55	..	Cancer and other Malignant Tumours	5,214	4,984	10,198	..	..	..	(*a*)
44 (*b*)	201	Lymphogranulomatosis (Hodgkin's Disease)	51	39	90	*55*	*42*	*97*	1.08
74	204	Leukaemia and Aleukaemia ..	214	162	376	*209*	*160*	*369*	0.98
..	140–205	Malignant Neoplasms and Neoplasms of the Lymphatic and Haematopoietic Tissues ..	5,479	5,185	10,664	5,355	5,075	10,430	0.98

(*a*) The comparability ratio of the Sixth Revision group 140–205 to the Fifth Revision group 45–55 is 1.02.

NOTE.—Figures in italics are inserted for purposes of comparison, not for adjustment.

The smaller total on the Sixth Revision basis is due to the exclusion of Neoplasms stated by the medical practitioner to be a contributory cause of death only. Former rules selected some of these as the cause of death to be tabulated.

(*b*) *Type and Seat of Disease.* Tables showing the type and seat of diseases, in conjunction with age and conjugal condition of the persons dying from malignant neoplasms in 1949 and 1950 will be found in *Demography Bulletins* Nos. 67 and 68. A summary regarding type and seats of disease for 1950 (Sixth Revision basis) is given below. It may be pointed out that the significance of the number of deaths shown for the various types of neoplasms enumerated hereunder is doubtful, owing to the fact that, in the absence of a post-mortem, it is impracticable for the certifying doctor in the majority of cases to make an accurate diagnosis as to type in the detail required for the following classification.

DEATHS FROM MALIGNANT NEOPLASMS AND NEOPLASMS OF LYMPHATIC AND HAEMATOPOIETIC TISSUES : TYPE AND SEAT OF DISEASE, AUSTRALIA, 1950.

Type of Disease.	Males.	Females.	Persons.
Malignant Neoplasms—			
Cancer and Carcinoma (other than skin) ..	4,486	4,427	8,913
Skin Cancer	95	62	157
Sarcoma and Myeloid Sarcoma	106	89	195
Myeloma	1	..	1
Glioma	47	19	66
Endothelioma	4	1	5
Melanoma and Melanotic Sarcoma	68	46	114
Hypernephroma ..	22	14	36
Teratoma	8	..	8
Malignant Disease and Malignant Tumor n.o.s.	136	148	284
Total, Malignant Neoplasms ..	4,973	4,806	9,779
Neoplasms of Lymphatic and Haematopoietic Tissues—			
Lymphosarcoma and Reticulosarcoma ..	91	48	139
Hodgkin's Disease ..	55	42	97
Other forms of Lymphoma (Reticulosis) ..	10	7	17
Multiple Myeloma (Plasmocytoma) ..	17	12	29
Leukaemia and Aleukaemia	209	160	369
Mycosis Fungoides ..	..	..	..
Total, Neoplasms of Lymphatic, etc., Tissues	382	269	651
Grand Total ..	5,355	5,075	10,430

Seat of Disease.	Males.	Females.	Persons.
Malignant Neoplasms—			
Buccal Cavity and Pharynx	216	65	281
Digestive Organs and Peritoneum—			
Oesophagus ..	157	72	229
Stomach ..	1,155	707	1,862
Small Intestine ..	20	20	40
Large Intestine ..	569	737	1,306
Other	689	631	1,320
Respiratory System ..	748	168	916
Breast	6	966	972
Uterus	..	551	551
Other Female Genital Organs	..	327	327
Male Genital Organs ..	646	..	646
Urinary Organs ..	271	154	425
Skin	168	93	261
Other and Unspecified Organs	328	315	643
Total, Malignant Neoplasms ..	4,973	4,806	9,779
Neoplasms of Lymphatic and Haematopoietic Tissues	382	269	651
Grand Total ..	5,355	5,075	10,430

(*c*) *Age at Death.* The ages of persons who died from malignant neoplasms in 1921, 1931, 1941 and 1950 are given below. Inferences drawn from the great increase in the number of deaths from malignant neoplasms in 1950 compared with 1921 need qualification in view of the altered age constitution of the population since the earlier year. The number of people over 55 years of age, at which level cancer risks are greatest, more than doubled between 1921 and 1950, whilst those in the age-group 75 years and over more than trebled. It is only in this extreme old age-group from 75 onwards that the rate of mortality, as distinct from the number of deaths, has increased. For groups up to age 75 there has been no increase in mortality rates since 1921 ; indeed, in some age-groups the rates have actually declined. It is also probable that a proportion of the increased number of deaths from cancer recorded in recent years has been due to more correct diagnosis and certification on the part of medical practitioners rather than to any actual increase in the disease itself.

MALIGNANT NEOPLASMS : NUMBER OF DEATHS IN AGE-GROUPS, AUSTRALIA.

Age-group (Years).	1921.			1931.			1941.			1950.		
	Males.	Females.	Persons.	Males.	Females.	Persons.	Males.	Females.	Persons.	Males.	Females.	Persons.
Under 15 ..	26	23	49	25	23	48	21	25	46	92	53	145
15–19 ..	8	11	19	12	11	23	10	10	20	22	17	39
20–24 ..	6	7	13	12	14	26	15	13	28	34	22	56
25–29 ..	15	19	34	19	13	32	24	22	46	39	36	75
30–34 ..	26	45	71	26	55	81	28	45	73	58	61	119
35–39 ..	56	81	137	59	98	157	56	106	162	69	121	190
40–44 ..	81	140	221	111	173	284	92	193	285	122	231	353
45–49 ..	147	207	354	149	261	410	149	282	431	198	268	466
50–54 ..	240	263	503	261	287	548	316	403	719	354	401	755
55–59 ..	358	308	666	349	344	693	425	435	860	548	538	1,086
60–64 ..	442	349	791	519	400	919	558	491	1,049	746	633	1,379
65–69 ..	380	285	665	662	478	1,140	670	558	1,228	863	749	1,612
70–74 ..	312	234	546	609	410	1,019	753	623	1,376	814	666	1,480
75–79 ..	212	215	427	397	294	691	676	512	1,188	701	565	1,266
80–84 ..	83	89	172	187	152	339	331	330	661	455	423	878
85 and over ..	45	52	97	87	92	179	131	175	306	239	291	530
Not stated ..	3	..	3	..	..	..	..	..	..	1	..	1
Total ..	2,440	2,328	4,768	3,484	3,105	6,589	4,255	4,223	8,478	5,355	5,075	10,430

(*d*) *Occupation at Death, Males.* A table showing main groups of occupations of males who died from malignant neoplasms and neoplasms of lymphatic and haematopoietic tissues during 1950 appears in *Demography Bulletin* No. 68.

(*e*) *Death-rates.* The following table shows the death-rates per 100,000 of mean population from malignant neoplasms in each State for 1931, 1941 and 1950. These rates are crude death rates which do not take account of changes in the age constitution of the population, and to a substantial extent reflect the increasing age of the population rather than the true change in death rate from malignant neoplasms (*see* para. (*c*) page 629.) Corresponding figures for 1949 may be obtained from *Demography Bulletin* No. 67.

MALIGNANT NEOPLASMS : DEATH-RATES.(*a*)

State or Territory.	1931.			1941.			1950.		
	Males.	Females.	Persons.	Males.	Females.	Persons.	Males.	Females.	Persons.
New South Wales	99	95	97	116	107	112	127	120	124
Victoria ..	111	106	109	132	145	138	142	149	146
Queensland ..	105	77	92	100	97	99	125	104	114
South Australia..	112	124	118	112	140	126	129	123	126
Western Australia	110	81	97	135	110	123	128	110	119
Tasmania ..	100	100	100	125	127	126	110	119	114
Northern Territory	69	119	87	54	35	49	21	18	20
Australian Capital Territory ..	21	51	35	25	61	41	23	116	64
Australia ..	105	97	101	119	120	119	130	125	127

(*a*) Number of deaths from malignant neoplasms per 100,000 of mean population.

(*f*) *Proportion of Total Deaths.* While the death-rate from all causes has diminished substantially in recent years, the rate from malignant neoplasms has risen almost continuously, the result being that out of 10,000 deaths from all causes, 1,334 were due to malignant neoplasms in 1950 compared with 735 per 10,000 total deaths during the period 1911–20. The following table shows the proportions recorded in each State and Territory for 1911–20, 1921–30, 1931–40 and 1941–50. Figures have been compiled on a uniform basis throughout each decennium.

MALIGNANT NEOPLASMS: PROPORTION PER 10,000 TOTAL DEATHS.

State or Territory.	1911–20.			1921–30.			1931–40.			1941–50(*a*)		
	Males.	Females.	Persons.	Males.	Females.	Persons.	Males.	Females.	Persons.	Males.	Females.	Persons.
N.S. Wales ..	674	806	729	900	1,070	973	1,060	1,271	1,152	1,089	1,357	1,207
Victoria ..	681	870	767	943	1,145	1,037	1,115	1,353	1,226	1,199	1,460	1,323
Queensland ..	611	741	661	866	1,009	922	1,066	1,138	1,095	1,064	1,285	1,156
South Australia	736	876	800	1,021	1,137	1,074	1,207	1,441	1,315	1,159	1,416	1,278
Western Aust.	612	802	680	873	1,112	961	1,098	1,241	1,152	1,172	1,366	1,251
Tasmania ..	664	836	743	842	1,014	922	1,040	1,252	1,136	1,059	1,331	1,185
Northern Terr.	335	426	346	621	137	565	645	811	671	379	331	371
Aust. Cap. Terr.	806	625	727	233	349	271	544	898	677	924	1,606	1,183
Australia ..	667	826	735	912	1,091	990	1,089	1,292	1,178	1,125	1,384	1,241

(*a*) 1950 figures used in this table are those compiled according to the Fifth Revision.

(*g*) *Death-rates, Various Countries.* The following table shows the death-rates from malignant neoplasms for Australia and each State in comparison with the rates for various other countries. In order that the rates may be presented uniformly on the basis of the Fifth Revision of the International List, the figures have been restricted to the latest available year on that basis up to and including 1949.

MALIGNANT NEOPLASMS: DEATH-RATES(*a*), VARIOUS COUNTRIES.

Country.	Year.	Rate.	Country.	Year.	Rate.
Ceylon	1949	15	Eire	1949	139
Portugal	1949	53	New Zealand(*d*) ..	1949	140
Japan	1949	72	Netherlands ..	1949	141
Spain	1948	72	Sweden	1947	141
Italy	1949	103	Norway	1948	144
Union of South Africa(*b*)	1947	108	Belgium	1949	146
Canada	1949	124	Denmark	1949	157
Finland	1949	126	Western Germany ..	1949	160
Australia (*c*) ..	**1949**	**126**	Switzerland ..	1949	162
Queensland (*c*) ..	1949	108	France	1949	169
Tasmania (*c*) ..	1949	111	Great Britain and Northern Ireland ..	1949	184
New South Wales (*c*)	1949	121	*Northern Ireland*	1949	143
Western Australia (*c*)	1949	123	*Scotland* ..	1949	185
South Australia (*c*)	1949	125	*England and Wales*	1949	187
Victoria (*c*) ..	1949	146			
U.S. of America ..	1949	139			

(*a*) Number of deaths per 100,000 of mean population. (*b*) European population only. (*c*) Excludes full-blood aboriginals. (*d*) Excludes Maoris.

(*h*) *Comparison with Tuberculosis.* In recent years the death-rate from tuberculosis has shown a tendency to decrease, while that from malignant neoplasms has displayed an almost continuous increase. The table hereunder shows that for each of the periods under review the decline in the death-rate from tuberculosis has been accompanied by an almost equal increase in the rate for malignant neoplasms. Thus, in the fifty years comprised in the five-yearly averages shown below, the death-rate for tuberculosis declined by 62, while the rate for malignant neoplasms increased by 62 per 100,000 persons. This equal but opposite tendency may be demonstrated by stating that the death-rate from tuberculosis and malignant neoplasms, combined, remained almost constant in each period, the figures being :—1901–05, 152 deaths per 100,000 persons; 1906–10, 145; 1911–15, 152; 1916–20, 154; 1921–25, 153; 1926–30, 152; 1931–35, 150; 1936–40, 154; 1941–45, 156; 1946–50, 152; and 1950, 146.

TUBERCULOSIS AND MALIGNANT NEOPLASMS : DEATH-RATES(a), AUSTRALIA.

Period.	Death-rate from Tuberculosis.			Death-rate from Malignant Neoplasms.		
	Males.	Females.	Persons.	Males.	Females.	Persons.
1901–05 ..	100	77	89	64	61	63
1906–10 ..	81	69	75	71	70	70
1911–15 ..	84	69	77	75	74	75
1916–20 ..	84	59	71	86	80	83
1921–25 ..	71	52	62	93	88	91
1926–30 ..	64	49	57	97	94	95
1931–35 ..	52	37	45	108	102	105
1936–40 ..	47	31	39	116	113	115
1941–45 ..	45	26	36	118	131	120
1946–50 ..	36	18	27	126	124	125
1950.. ..	28	12	20	130	125	126

(a) Number of deaths per 100,000 of mean population.

(iv) *Diseases of the Heart* (42 *to* 46). The number of deaths classified to diseases of the heart for 1950 on the basis of the Fifth Revision, compared with the classification on the basis of the Sixth Revision, is as follows :—

Basis of Classification.	Males.	Females.	Persons.
Fifth Revision (Categories 90–95) ..	15,005	10,293	25,298
Sixth Revision (Categories 410–443) ..	14,687	10,256	24,943
Difference due to Revision	(—) 318	(—) 37	(—) 355

These figures represent a ratio of 0.99 for deaths classified by the Sixth Revision to those classified by the Fifth Revision.

Details for each individual category within the groups above may be obtained from *Demography Bulletin* No. 68. The sex and territorial distribution of the deaths (Sixth Revision basis) will be found in the table below. This class is the largest among causes of death, the death-rate having grown from 1,019 per million in 1911–15 to 2,705 in 1939–43 and 3,048 in 1950. The increase in the number of deaths recorded from heart diseases has been particularly pronounced during the past sixteen years. The rapid increase in mortality is partly a reflection of the ageing of the population, but the figures have been influenced mainly by improved diagnosis and certification by medical practitioners. Many deaths of elderly people, formerly attributed to senility or other indefinite causes, are believed to be now more frequently certified as associated with some form of heart disease, usually myocardial degeneration. The improvement in diagnosis has been particularly evident in the case of diseases of the coronary arteries. When first listed in the heart disease group in 1931, there were 1,139 deaths from this cause and angina pectoris, but in 1950 the number on a comparable basis (Fifth Revision) was 9,027. The number of deaths classified under The Sixth Revision as due to diseases of the heart, together with death-rates and proportions per 10,000 deaths in 1950, are given in the following table. Corresponding figures for 1949 (Fifth Revision) may be obtained from *Demography Bulletin* No. 67.

DISEASES OF THE HEART: DEATHS, DEATH-RATES AND PROPORTION PER 10,000 TOTAL DEATHS, 1950.

State or Territory.	Number of Deaths.			Death-rates.(a)			Proportion per 10,000 Total Deaths.		
	Males.	Females.	Persons.	Males.	Females.	Persons.	Males.	Females.	Persons.
New South Wales	6,239	4,081	10,320	385	254	320	3,552	3,046	3,333
Victoria ..	3,968	3,178	7,146	361	288	324	3,368	3,009	3,199
Queensland ..	1,869	1,167	3,036	310	203	258	3,034	2,753	2,920
South Australia ..	1,247	915	2,162	357	261	309	3,351	3,031	3,208
Western Australia	916	604	1,520	319	222	272	3,031	2,967	3,005
Tasmania ..	409	300	709	283	218	251	3,103	2,613	2,875
Northern Territory	19	..	19	202	..	127	2,289	..	1,979
Australian Capital Territory ..	20	11	31	151	106	131	2,857	2,115	2,541
Australia ..	14,687	10,256	24,943	356	253	305	3,359	2,976	3,190

(a) Number of deaths from diseases of the heart per 100,000 of mean population.

(v) *Diarrhœa and Enteritis* (*Children under two years of age*) (54). The number of deaths due to this cause at ages under two years in 1950 classified according to the Fifth and Sixth Revisions of the International List was as follows :—

Basis of Classification.	Males.	Females.	Persons.
Fifth Revision (Category 119)	156	117	273
Sixth Revision (Categories, 571 572, 764) ..	135	102	237
Difference due to Revision	(—) 21	(—) 15	(—) 36

The ratio of comparison of Sixth Revision to Fifth Revision figures for this cause of death in children under two years of age is 0.87.

The detailed inclusions in categories 571, 572 and 764 are more embracing than those of the former category 119, but it is unlikely that these would materially affect children under two years of age. The difference, therefore, is almost entirely due to the rules of preference formerly in use giving preference to diarrhœa and enteritis when this cause was not the true underlying cause of death.

The number of deaths under 2 years of age due to diarrhœa and enteritis, the death-rates, and proportions per 10,000 deaths for 1911–15, 1921–25, 1931–35, 1936–40, 1941–45, 1946–50 and 1950 are given in the following table. In order to complete the five-yearly period 1946–50 on a uniform basis, the figures for 1950 used in this table are those tabulated according to the Fifth Revision. Details for the Northern Territory and Australian Capital Territory have been omitted as limited experience makes death-rates from these causes of little significance. Corresponding figures for 1949 may be obtained from *Demography Bulletin* No. 67.

DIARRHŒA AND ENTERITIS (UNDER 2 YEARS OF AGE) : DEATHS, DEATH-RATES AND PROPORTION PER 10,000 TOTAL DEATHS.

State or Territory.	Number of Deaths.			Death-rates.(a)			Proportion per 10,000 Total Deaths.		
	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.
New South Wales	69	61	130	4	4	4	39	46	42
Victoria ..	21	14	35	2	1	2	18	13	16
Queensland ..	11	10	21	2	2	2	18	24	20
South Australia..	36	17	53	10	5	8	97	56	79
Western Australia	14	14	28	5	5	5	46	69	55
Tasmania ..	2	..	2	1	..	1	15	..	8
Australia, 1950 (b)	156	117	273	4	3	3	36	34	35
Annual Average—									
1911–15 ..	1,687	1,354	3,041	68	59	64	569	627	593
1921–25 ..	1,114	859	1,973	38	31	35	362	366	364
1931–35 ..	234	175	409	7	5	6	70	68	69
1936–40 ..	212	159	371	6	5	5	57	54	56
1941–45 ..	200	150	350	5	4	5	51	46	49
1946–50 ..	154	115	269	4	3	3	87	34	36

(a) Number of deaths from these diseases per 100,000 of mean population. (b) Includes Northern Territory and Australian Capital Territory.

Reference to the last six lines of the above table reveals a general decrease in the number of deaths due to diarrhœa and enteritis (under 2 years of age). In view of changed birth-rates, however, the death-rates per 100,000 of mean population are not true measures of changes in the force of mortality. A better measure is the estimated number of children in every 1,000 born who died from these diseases before reaching their second birthday. These rates are as follows :—

Period—		Males,		Females,		Total,	
Period—	1911–15	Males,	24.6	Females,	20.9	Total,	22.8
,,	1921–25	,,	16.5	,,	13.3	,,	14.9
,,	1931–35	,,	3.7	,,	2.8	,,	3.3
,,	1936–40	,,	3.4	,,	2.7	,,	3.0
,,	1941–45	,,	2.7	,,	2.1	,,	2.4
,,	1946–50	,,	1.6	,,	1.3	,,	1.5

(vi) *Puerperal Causes* (68 *to* 72). The changes introduced with the Sixth Revision of the International List did not significantly affect the comparability of the total number of deaths from puerperal causes. The number for 1950 classified in accordance with the Fifth Revision was 209 and with the Sixth Revision 208. The 208 deaths in 1950 on the basis of the Sixth Revision correspond to a death-rate of 5.12 per 100,000 females. The rate is also equivalent to 1.09 deaths per 1,000 live births. The death-rate may be expressed in other terms by stating that 1 of every 906 women giving birth to a live child in 1950 died from puerperal causes ; the corresponding ratios for married women were 1 in every 959 and for single women 1 in every 382. More detailed information will be found in a series of tables in *Demography Bulletin* No. 68.

The following table shows the death-rate per 1,000 live births from puerperal causes in various countries. In order that the rates may be presented uniformly on the basis of the Fifth Revision of the International List, the figures have been restricted to the latest available year on that basis up to and including 1949. Care is needed in comparing the Australian rates with the figures for other countries. The figures have been taken from the Abridged International List in each case (Items 35 and 36). Item 35 comprises detailed categories 140 and 147 so that all abortion with sepsis, including criminal abortion with sepsis, is included under the heading "Puerperal Infection". Whilst this is in conformity with the International List it is not known whether the statistical assignment of deaths from criminal abortion is consistent in all countries.

CHILD-BIRTH : DEATHS PER 1,000 LIVE BIRTHS, VARIOUS COUNTRIES.

Country.	Year.	Rates per 1,000 Live Births from—		
		Puerperal Infection.	Other Puerperal Causes.	All Puerperal Causes.
Sweden	1947	0.06	0.81	0.87
France	1949	(*a*)	(*a*)	0.90
Denmark	1949	0.11	0.82	0.93
Norway	1948	0.23	0.78	1.01
New Zealand (*b*)	1949	0.25	0.77	1.02
Great Britain and Northern Ireland	1949	0.23	0.81	1.04
England and Wales	1949	0.22	0.77	0.99
Northern Ireland	1949	0.27	1.00	1.27
Scotland	1949	0.25	1.05	1.30
Netherlands	1949	0.25	0.83	1.08
United States of America	1948	0.28	0.89	1.17
Australia (*c*)	**1949**	**0.28**	**0.93**	**1.21**
Victoria (*c*)	1949	0.25	0.62	0.87
Tasmania (*c*)	1949	0.14	0.84	0.98
Western Australia (*c*)	1949	0.22	0.96	1.18
South Australia (*c*)	1949	0.37	0.94	1.31
New South Wales (*c*)	1949	0.32	1.05	1.37
Queensland (*c*)	1949	0.25	1.23	1.48
Spain	1948	0.40	0.87	1.27
Union of South Africa (*d*)	1947	0.36	1.00	1.36
Canada	1949	0.25	1.26	1.51
Italy	1949	0.30	1.35	1.65
Switzerland	1949	0.14	1.51	1.65
Japan	1948	0.23	1.42	1.65
Eire	1949	0.28	1.53	1.81
Western Germany	1949	0.69	1.33	2.02
Belgium	1948	0.50	1.60	2.10
Portugal	1949	0.68	1.50	2.18
Egypt (*e*)	1943	0.59	2.89	3.48
Ceylon	1949	1.39	5.16	6.55

(*a*) Not available. (*b*) Excludes Maoris. (*c*) Excludes full-blood aboriginals. (*d*) European population only. (*e*) Localities having Health Bureaux.

A tabulation of puerperal causes for Australia according to age at death for married and single women separately will also be found in *Demography Bulletin* No. 68.

The total number of children left by the 189 married mothers who died from puerperal causes in 1950 was 488 an average of 2.6 children per mother.

Two of the mothers who died had been married less than one year, 26 between one and two years, and 14 between two and three years. The duration of marriage ranged up to 24 years. Tabulations distinguishing the ages at marriage and at death will be found in *Demography Bulletin* No. 68, which also includes a table showing in combination the duration of marriage and previous issue.

(vii) *Congenital Malformation, Debility, Premature Birth, etc.* (75 *to* 79). This combined group embraces two complete classes of the International List of Causes of

Death on the basis of both the Fifth and Sixth Revisions. Comparison of the figures for 1950 on both bases is as follows :—

Basis of Classification.	Class XIV. Congenital Malformations.			Class XV. Certain Diseases of Early Infancy.			Total. Class XIV. and Class XV.		
	Males.	Females.	Persons.	Males.	Females.	Persons.	Males.	Females.	Persons.
Sixth Revision ..	467	404	871	1,682	1,209	2,891	2,149	1,613	3,762
Fifth Revision ..	468	412	880	1,578	1,128	2,706	2,046	1,540	3,586
Difference due to Revision	(−) 1	(−) 8	(−) 9	(+)104	(+) 81	(+)185	(+)103	(+) 73	(+)176
Comparability Ratio ..	1.00	0.98	0.99	1.07	1.07	1.07	1.05	1.05	1.05

The distribution of these deaths by States and Territories on the basis of both Revisions will be found in *Demography Bulletin* No. 68.

The greater number of deaths in Class XV. on the Sixth Revision basis is due to the creation of the new categories " pneumonia of the new-born " and " diarrhœa of the new-born ", which resulted in the transfer of deaths from the general categories covering these causes of death. This transfer accounts for 142 without mention of immaturity, and about ten with immaturity. The remainder of the difference is due to the changed method of selecting the underlying cause of death.

Most of the deaths from congenital malformations are of children under one year of age, the number on the Sixth Revision basis being 670 or 77 per cent. Virtually all of the deaths in Class XV. are under one year of age, 2,890 out of the 2,891 being within this age-group. In both classes combined there were 3,560 deaths under one year, which represents 76 per cent. of the total number of deaths under one year of age.

The individual categories representing the causes of death which come within Class XV. of the Sixth Revision are designed to show the effect of immaturity in such causes of infant death. The 1950 experience was as follows :—

Category No.	Cause of Death.	Without Mention of Immaturity.			With Immaturity.			Total.		
		Males.	Females.	Persons.	Males.	Females.	Persons.	Males.	Females.	Persons.
760	Intracranial and spinal injury at birth	205	131	336	62	37	99	267	168	435
761	Other birth injury ..	57	35	92	58	35	93	115	70	185
762	Post-natal asphyxia and atelectasis	139	112	251	110	64	174	249	176	425
763	Pneumonia of the newborn	68	51	119	11	20	31	79	71	150
764	Diarrhœa of the newborn ..	14	9	23	2	3	5	16	12	28
765	Ophthalmia neonatorum ..	..	..	..	..	..	..	..	..	..
766	Pemphigus neonatorum ..	1	1	2	..	..	..	1	1	2
767	Umbilical sepsis	3	2	5	..	1	1	3	3	6
768	Other sepsis of newborn ..	8	2	10	..	2	2	8	4	12
769	Neonatal disorders arising from maternal toxæmia	13	14	27	43	39	82	56	53	109
770	Hæmolytic disease of newborn (erythroblastosis) ..	81	52	133	5	11	16	86	63	149
771	Hæmorrhagic disease of newborn	24	17	41	9	2	11	33	19	52
772	Nutritional maladjustment	23	11	34	3	1	4	26	12	38
773	Ill-defined diseases peculiar to early infancy ..	51	30	81	90	49	139	141	79	220
774	Immaturity with mention of any other subsidiary condition	..	..	..	11	5	16	11	5	16
775	Immaturity subsidiary to some other cause ..	..	..	..	..	..	..	..	..	..
776	Immaturiy unqualified ..	..	..	..	591	473	1,064	591	473	1,064
	Total, Class XV. ..	687	467	1,154	995	742	1,737	1,682	1,209	2,891

This table shows that 1,737 deaths in this class, or 60 per cent., were attributed directly or indirectly to immaturity. When classified according to the Fifth Revision basis, only 1,515 deaths were assigned to the category " premature birth ".

(viii) *Suicide* (81). (*a*) *General.* Deaths from suicide in 1950 numbered 760, compared with an annual average of 624 during 1911–15, 621 during 1921–25, 798 during 1931–35, 568 during 1941–45, and 674 during 1946–50.

(*b*) *Modes Adopted.* The modes adopted by persons who committed suicide in 1949 and 1950 were as follows :—

SUICIDE : MODES ADOPTED, AUSTRALIA.

Mode of Death.	Males.		Females.		Persons.	
	1949.	1950.	1949.	1950.	1949.	1950.
Poisoning	98	101	57	61	155	162
Poisonous gas	59	53	27	42	86	95
Hanging or strangulation.. ..	108	126	31	28	139	154
Drowning	40	37	23	30	63	67
Firearms and explosives	199	176	11	12	210	188
Cutting or piercing instruments ..	57	47	8	8	65	55
Jumping from high place ..	17	9	8	8	25	17
Crushing	..	..	..	..	..	..
Other modes	21	18	9	4	30	22
Total	599	567	174	193	773	760

(*c*) *Death-rates.* The death-rates from suicide and the proportion per 10,000 of total deaths are given in the following table for each year 1946 to 1950, corresponding rates for each successive five-yearly period from 1921–25 to 1946–50 being shown at the foot of the table :—

SUICIDE : DEATHS, DEATH-RATES AND PROPORTION PER 10,000 TOTAL DEATHS.

State or Territory.	Number of Deaths.			Death-rates.(a)			Proportion per 10,000 Total Deaths.		
	Males.	Females.	Persons.	Males.	Females.	Persons.	Males.	Females.	Persons.
New South Wales	225	92	317	14	6	10	128	69	102
Victoria ..	134	52	186	12	5	8	114	49	83
Queensland ..	85	25	110	14	4	9	138	59	106
South Australia ..	45	10	55	13	3	8	121	33	81
Western Australia	57	11	68	20	4	12	189	54	134
Tasmania ..	17	3	20	12	2	7	129	26	81
Northern Territory	3	..	3	32	..	20	361	..	312
Australian Capital Territory ..	1	..	1	8	..	4	143	..	82
Australia 1950 ..	567	193	760	14	5	9	130	56	97
" 1949 ..	599	174	773	15	4	10	142	53	103
" 1948 ..	578	159	737	15	4	10	136	47	96
" 1947 ..	546	200	746	15	5	10	134	61	102
" 1946 ..	513	219	732	14	6	10	124	66	98
Annual Average—									
1946–50 ..	561	189	750	14	5	10	133	56	99
1941–45 ..	405	163	568	11	5	8	102	50	79
1936–40 ..	586	170	756	17	5	11	157	56	114
1931–35 ..	635	163	798	19	5	12	190	62	134
1926–30 ..	650	141	791	20	5	13	198	56	136
1921–25 ..	509	112	621	18	4	11	166	48	114

(*a*) Number of deaths from suicide per 100,000 of mean population.

(*d*) *Age at Death.* From the following table which shows the age of persons who committed suicide in 1949 and 1950 it will be seen that both young and extremely old people took their lives during these years.

AGE OF PERSONS WHO COMMITTED SUICIDE : AUSTRALIA.

Age-group (Years).	1949.			1950.		
	Males.	Females.	Persons.	Males.	Females.	Persons.
10–14	3	..	3	3	2	5
15–19	15	7	22	13	5	18
20–24	36	6	42	30	8	38
25–29	43	13	56	39	9	48
30–34	43	10	53	35	17	52
35–39	54	23	77	55	19	74
40–44	54	18	72	56	21	77
45–49	65	23	88	41	15	56
50–54	48	10	58	68	19	87
55–59	55	14	69	57	30	87
60–64	53	23	76	44	21	65
65–69	51	16	67	43	17	60
70–74	39	8	47	40	6	46
75–79	21	3	24	27	4	31
80–84	13	..	13	10	..	10
85–89	5	..	5	6	..	6
90 and over ..	..	..	..	..	..	..
Age not stated ..	1	..	1	..	..	..
Total Deaths ..	599	174	773	567	193	760

(*e*) *Occupation at Death, Males.* A table showing main groups of occupations of males who committed suicide during 1950 appears in *Demography Bulletin* No. 68.

(*f*) *Death-rates, Various Countries.* The following table shows the death-rate from suicide for Australia and each State in comparison with the rates for various other countries. The table indicates that Australia occupies a fairly favourable position as regards the death-rate from suicide.

SUICIDE : DEATH-RATES (*a*), VARIOUS COUNTRIES.

Country.	Year.	Rate.	Country.	Year.	Rate.
Eire	1949	2.6	Great Britain and Northern Ireland ..	1949	10.1
Spain	1948	6.2	*Northern Ireland* ..	1949	4.2
Netherlands ..	1949	6.2	*Scotland*	1950	5.2
Italy	1949	6.6	*England and Wales*	1949	11.0
Ceylon	1949	6.7	Portugal	1949	10.6
Norway	1948	6.9	U.S. of America ..	1949	11.4
Canada	1950	7.8	Belgium	1949	13.6
Australia(*b*) ..	**1950**	**9.3**	Sweden	1947	14.8
Tasmania(b) ..	1950	7.1	France	1949	15.3
South Australia(b) ..	1950	7.9	Finland	1949	17.0
Victoria(b) ..	1950	8.4	Japan	1949	17.3
Queensland(b) ..	1950	9.2	Western Germany ..	1949	18.8
New South Wales(b)	1950	9.8	Denmark	1950	23.3
Western Australia(b)	1950	12.2	Switzerland ..	1949	23.6
Union of South Africa(*c*)	1947	9.7			
New Zealand(*d*) ..	1949	9.7			

(*a*) Number of deaths per 100,000 of mean population. (*b*) Excludes full-blood aboriginals. (*c*) European population only. (*d*) Excludes Maoris.

(ix) *Homicide* (82). Deaths from homicide in 1950 numbered 85, which was thirteen more than in the previous year and the same as the average for the five years 1946–50. *See* par. (x).

(x) *Accidental or Violent Deaths (including Suicide and Homicide).* The following table shows the various kinds of violent deaths, including suicide and homicide, recorded in Australia for 1950. Corresponding figures for 1949 (on the basis of the Fifth Revision) may be obtained from *Demography Bulletin* No. 67.

DEATHS FROM EXTERNAL VIOLENCE : AUSTRALIA, 1950.

International Category No.	Cause of Death.	Males.	Females.	Persons.
E800–E802	Railway accidents	124	13	137
E810–E825	Motor vehicle traffic accidents	1,465	282	1,747
E830–E835	Motor vehicle non-traffic accidents	34	5	39
E840–E845	Other road vehicle accidents	124	23	147
E850–E858	Water transport accidents	72	1	73
E860–E866	Aircraft accidents	51	9	60
E870–E888	Accidental poisoning by solid and liquid substances	51	36	87
E890–E895	Accidental poisoning by gases and vapours	21	12	33
E900–E904	Accidental falls	375	472	847
E912	Accident caused by machinery	48	3	51
E913	Accident caused by cutting and piercing instruments	2	..	2
E914	Accident caused by electric current	52	4	56
E916	Accident caused by fire and explosion of combustible material	87	52	139
E917, E918	Accident caused by hot substance, corrosive liquid, steam and radiation	25	26	51
E919	Accident caused by firearms	82	7	89
E924, E925	Accidental mechanical suffocation	34	15	49
E926	Lack of care of infants under 1 year of age	1	1	2
E927	Accidents caused by bites and stings of venomous animals	9	1	10
E928	Other accidents caused by animals	16	4	20
E929	Accidental drowning and submersion	362	77	439
E931	Excessive heat and insolation	15	7	22
E932	Excessive cold	4	..	4
E933	Hunger, thirst and exposure	13	..	13
E934	Cataclysm	7	2	9
E935	Lightning	1	..	1
E910, E911, E915, E920–E923, E930, E936	All other and unspecified accidents	191	42	233
E940–E946	Complications due to non-therapeutic medical and surgical procedures	1	2	3
E950–E959	Therapeutic misadventure and late complications of therapeutic procedures	2	6	8
E960–E962	Late effects of accidental injury and poisoning	8	7	15
E800–E965	**Total Accidents**	3,277	1,109	4,386
E963, E970–E979	Suicide and self-inflicted injury	567	193	760
E964, E980–E985	Homicide and injury purposely inflicted by other persons (including legal executions)	54	31	85
E965, E990–E999	Injury resulting from operations of war	7	..	7
	Total Deaths from accidents, poisonings and violence	3,905	1,333	5,238

The following table of death-rates per million of mean population reveals a decrease in 1921–25 for External Violence, excluding Suicide and Homicide, but an increase in the rates for 1926–30 to which the growth of automobile accidents contributed very largely. A decreased death-rate was recorded during 1931–35, but the rate rose again during 1936–40. The sharp decline during 1941–45 may be attributed to the decrease in number of automobile accidents which resulted from the war-time restrictions of travel.

DEATH-RATES, ETC., EXTERNAL VIOLENCE : AUSTRALIA.

Period.	Death-rates(a) from Homicide.			Death-rates(a) from External Violence, excluding Suicide and Homicide.			Death-rates(a) from all External Violence.			All External Violence Proportion per 10,000 Deaths.
	Males	Females.	Persons.	Males.	Females.	Persons.	Males.	Females.	Persons.	Persons.
1911–15 ..	21	16	19	948	268	621	1,170	330	770	718
1921–25 ..	17	13	15	753	211	487	950	260	610	643
1926–30 ..	19	15	17	843	240	549	1,070	300	690	746
1931–35 ..	21	11	16	714	223	472	923	284	609	676
1936–40 ..	18	9	13	862	283	576	1,069	342	699	725
1941–45 ..	14	9	11	670	261	466	795	315	557	558
1946–50 ..	13	9	11	755	275	516	912	332	623	640
1945 ..	14	7	11	571	255	413	692	309	501	526
1946 ..	14	10	12	728	289	510	881	359	621	621
1947 ..	13	11	12	743	289	517	900	353	627	647
1948 ..	13	9	11	750	271	511	912	321	618	620
1949 ..	11	7	9	754	251	504	916	302	610	642
1950 ..	13	8	10	794	273	536	946	328	640	670

(a) Number of deaths per 1,000,000 of mean population.

(xi) "*Other Diseases*". The intermediate and the abridged classifications of causes of death used in Tables A to E in preceding pages differ from those used in issues of the Official Year Book prior to No. 25 in that no residue of "other diseases" is shown at the foot. The items are ranged in classes or groups of classes and each class or group of classes is made complete by the addition of an "other diseases" item for that class or group of classes. Details of these "other diseases" items of the intermediate classification expanded into their constituent causes may be found in *Demography Bulletin* No. 68.

17. **Causes of Deaths in Classes.**—The figures in the preceding sub-sections relate to principal individual causes of death, and are of greater value in medical statistics than a mere grouping under general headings. The classification under eighteen general headings used in the Fifth Revision of the International List of Causes of Death is, however, shown in the following table for 1950, together with the death-rates and proportions of total deaths pertaining to those classes. A further table furnishes the death-rates for the five-year periods 1936–40, 1941–45, and 1946–50. Figures for 1949 corresponding to the first table may be obtained from *Demography Bulletin* No. 67.

DEATHS, DEATH-RATES, ETC., IN CLASSES: AUSTRALIA, 1950.

(BASED ON THE FIFTH REVISION OF THE INTERNATIONAL LIST.)

Class.	Total Deaths.			Death-rates.(a)			Proportion per 10,000 Deaths.		
	M.	F.	Total.	M.	F.	Total.	M.	F.	Total.
1. Infective and Parasitic Diseases	2,045	1,063	3,108	50	26	38	468	308	398
2. Cancer and Other Tumours ..	5,382	5,224	10,606	131	129	129	1,231	1,516	1,357
3. Rheumatism, Diseases of Nutrition and of the Endocrine Glands, Other General Diseases and Vitamin-deficiency Diseases	691	1,297	1,988	17	32	24	158	376	254
4. Diseases of the Blood and Blood-forming Organs	360	368	728	9	9	9	82	107	93
5. Chronic Poisoning and Intoxication	149	53	202	4	1	2	34	15	26
6. Diseases of the Nervous System and Sense Organs	4,457	5,547	10,004	108	137	122	1,020	1,609	1,280
7. Diseases of the Circulatory System	16,056	11,462	27,518	389	282	336	3,673	3,325	3,520
8. Diseases of the Respiratory System	2,998	2,166	5,164	73	53	63	686	628	660
9. Diseases of the Digestive System	1,908	1,257	3,165	46	31	39	436	365	405
10. Diseases of the Genito-urinary System	2,618	1,693	4,311	63	42	53	599	491	551
11. Diseases of Pregnancy, Childbirth and Puerperal State ..	..	207	207	..	5	3	..	60	26
12. Diseases of the Skin and Cellular Tissue	41	41	82	1	1	1	9	12	10
13. Diseases of the Bones and Organs of Movement	40	26	66	1	1	1	9	8	8
14. Congenital Malformations ..	468	412	880	11	10	11	107	120	113
15. Diseases Peculiar to the First Year of Life	1,578	1,128	2,706	38	28	33	361	327	346
16. Senility, Old-age	897	1,122	2,019	22	28	25	205	326	258
17. Violent or Accidental Deaths ..	3,895	1,337	5,232	94	33	64	891	388	669
18. Ill-defined Causes of Death ..	137	64	201	3	1	2	31	19	26
Total	43,720	34,467	78,187	1,060	849	955	10,000	10,000	10,000

(a) Number of deaths per 100,000 of mean population.

DEATH-RATES(a) IN CLASSES: AUSTRALIA.

Class.	1936–40.			1941–45.			1946–50.		
	M.	F.	Total.	M.	F.	Total.	M.	F.	Total.
1. Infective and Parasitic Diseases	80	56	68	77	48	63	58	31	45
2. Cancer and Other Tumours ..	121	120	121	123	128	126	130	129	130
3. Rheumatism, Diseases of Nutrition and of the Endocrine Glands, Other General Diseases and Vitamin-deficiency Diseases	20	36	28	19	37	28	18	33	25
4. Diseases of the Blood and Blood-forming Organs	8	8	8	7	8	8	8	8	8
5. Chronic Poisoning and Intoxication	2	1	1	2	1	1	3	1	2
6. Diseases of the Nervous System and Sense Organs	67	74	70	98	122	110	106	132	119
7. Diseases of the Circulatory System	318	245	282	354	269	312	388	280	334
8. Diseases of the Respiratory System	100	72	86	89	68	78	77	60	68
9. Diseases of the Digestive System	59	44	52	55	40	47	47	33	40
10. Diseases of the Genito-urinary System	85	61	73	81	55	68	68	44	56
11. Diseases of Pregnancy, Childbirth and Puerperal State ..	..	17	8	..	13	6	..	7	3
12. Diseases of the Skin and Cellular Tissue	3	2	3	2	2	2	1	1	1
13. Diseases of the Bones and Organs of Movement	3	1	2	2	1	1	1	1	1
14. Congenital Malformations ..	11	9	10	11	10	11	12	10	11
15. Diseases Peculiar to the First Year of Life	43	33	38	46	34	40	42	31	37
16. Senility, Old-age	39	41	40	38	36	37	27	31	29
17. Violent or Accidental Deaths ..	105	34	70	79	31	56	91	33	62
18. Ill-defined Causes of Death ..	5	2	4	5	2	3	3	2	3
Total	1,069	856	964	1,088	905	997	1,080	867	974

(a) Number of deaths per 100,000 of mean population.

18. **Age at Death of Deceased Married Males and Females, and Issue.**—*Demography Bulletin* No. 68 contains a number of tables showing, in combination with the issue, the age at marriage, age at death and occupation of married persons who died in Australia in 1950. Deaths of married males in 1950 numbered 31,330, and of married females, 26,583. The tabulations which follow deal, however, with only 30,827 males and 26,365 females, the information regarding issue in the remaining 721 cases being incomplete. The total number of children in the families of the 30,827 males was 106,811, and of the 26,365 females, 99,077. The average number of children is shown for various age-groups in the following table :—

AGE AT DEATH, AND AVERAGE ISSUE OF DECEASED MARRIED MALES AND FEMALES : AUSTRALIA.

Age-group (Years).	Average Issue.									
	Males.					Females.				
	1911.	1921.	1931.	1941.	1950.	1911.	1921.	1931.	1941.	1950.
Under 20 ..	0.33	..	0.75	..	..	0.94	0.77	0.66	0.79	0.65
20–24 ..	0.77	0.84	0.81	0.73	0.60	1.27	1.22	1.13	0.95	0.92
25–29 ..	1.25	1.29	1.33	1.12	1.35	1.82	1.86	1.81	1.45	1.51
30–34 ..	2.05	2.06	1.79	1.76	1.65	2.74	2.45	2.34	1.91	2.12
35–39 ..	2.80	2.58	2.13	2.11	2.08	3.64	3.29	2.89	2.30	2.28
40–44 ..	3.47	3.23	2.77	2.49	2.38	4.09	3.66	3.29	2.77	2.42
45–49 ..	4.09	3.48	3.10	2.68	2.46	4.54	3.76	3.55	2.93	2.47
50–54 ..	4.75	3.76	3.46	2.96	2.68	5.35	4.23	3.60	3.29	2.77
55–59 ..	5.44	4.41	3.69	3.28	2.87	5.86	4.69	4.01	3.55	3.22
60–64 ..	5.95	4.98	4.02	3.55	3.06	5.99	5.39	4.21	3.79	3.36
65–69 ..	6.23	5.50	4.41	3.73	3.33	6.50	5.86	4.82	4.01	3.60
70–74 ..	6.41	6.06	5.06	4.17	3.64	6.38	6.30	5.41	4.29	3.80
75–79 ..	6.75	6.66	5.65	4.56	3.95	6.72	6.56	6.02	4.85	4.01
80–84 ..	6.68	6.89	6.17	4.93	4.27	6.22	6.76	6.26	5.39	4.40
85–89 ..	6.67	7.18	6.59	5.70	4.85	5.97	6.93	6.57	5.85	4.78
90–94 ..	6.03	7.21	6.94	6.57	5.24	5.69	6.53	6.73	6.11	5.26
95–99 ..	7.30	6.97	6.69	7.04	6.05	5.05	6.05	7.10	6.34	6.03
100 and over	9.33	9.20	7.00	8.69	4.71	5.17	5.11	8.20	6.73	5.94
Age not stated	4.33	5.36	5.00	..	3.33	4.60	5.80	5.00	..	5.33
All Ages ..	5.42	4.97	4.44	3.91	3.46	5.35	5.05	4.72	4.22	3.76

The figures in the preceding table include the issue both living and dead, the proportion between them, taking the issue of deceased males and females together, being about five to one. The totals are shown in the following table :—

ISSUE OF DECEASED MARRIED MALES AND FEMALES : AUSTRALIA, 1950.

Issue of Married Males.				Issue of Married Females.			
Issue.	Males.	Females.	Total.	Issue.	Males.	Females.	Total.
Living ..	46,396	45,264	91,660	Living ..	40,408	40,184	80,592
Dead ..	8,918	6,233	15,151	Dead ..	10,773	7,712	18,485
Total ..	55,314	51,497	106,811	Total ..	51,181	47,896	99,077

19. **Age at Marriage of Deceased Males and Females, and Issue.**—While the table giving the average issue of married males and females naturally shows an increase in the averages with advancing age at death, the following table which gives the average

issue of males and females according to the age at marriage of the deceased parent shows a corresponding decrease in the averages as the age at marriage advances :—

AGE AT MARRIAGE OF DECEASED MALES AND FEMALES, AND AVERAGE ISSUE : AUSTRALIA.

Age-group (Years).	Average Issue.									
	Males.					Females.				
	1911.	1921.	1931.	1941.	1950.	1911.	1921.	1931.	1941.	1950.
Under 15 ..	..	..	..	..	2.00	9.71	7.60	6.36	7.80	5.69
15–19 ..	6.97	6.32	6.15	5.40	4.64	7.10	6.97	6.79	6.10	5.53
20–24 ..	6.34	6.05	5.56	4.89	4.32	5.77	5.50	5.23	4.80	4.32
25–29 ..	5.70	5.17	4.70	4.21	3.70	4.27	4.09	3.79	3.51	3.25
30–34 ..	4.92	4.45	3.96	3.41	3.09	3.04	2.66	2.42	2.35	2.22
35–39 ..	4.05	3.90	3.14	2.80	2.51	1.68	1.61	1.40	1.26	1.25
40–44 ..	3.43	2.67	2.36	2.01	1.84	0.72	0.62	0.39	0.35	0.46
45–49 ..	2.59	2.20	1.96	1.52	1.42	0.26	0.03	0.12	0.01	0.36
50–54 ..	2.45	1.70	1.60	1.05	0.96	..	..	..	..	..
55–59 ..	1.66	1.30	0.95	0.79	0.87	..	..	..	..	..
60–64 ..	2.00	0.33	0.63	0.29	0.73	..	..	..	..	..
65 and over ..	1.00	0.25	0.18	0.01	1.17	..	..	..	..	..
Age not stated	5.40	4.93	3.64	2.95	2.83	5.23	5.41	3.96	2.45	3.31
All Ages ...	5.42	4.97	4.44	3.91	3.46	5.35	5.05	4.72	4.22	3.76

20. **Birthplace of Deceased Married Males and Females, and Issue.**—A table showing the birthplaces of married males and females who died in 1911 and 1940. together with the average issue, may be found in the Official Year Book No. 34, p. 366.

21. **Occupation of Deceased Married Males, and Issue.**—A summary of the main groups of occupations of married males who died during 1950, together with issue, appears in *Demography Bulletin* No. 68.

§ 4. Registration of Births, Deaths and Marriages in the Australian Capital Territory.

To the end of 1929 the provisions of the Registration of Births, Deaths and Marriages Act of 1899 and the Marriage Act of 1899 of New South Wales applied to the Australian Capital Territory. Births, deaths and marriages occurring within the Territory were registered by the New South Wales District Registrars at Queanbeyan and Nowra, and were incorporated in the New South Wales registration records but excluded from New South Wales statistics.

In 1929, however, the Registration of Births, Deaths and Marriages Ordinances were enacted, providing for the assumption by the Commonwealth Government of the function of registration within the Territory as from 1st January, 1930. All registrations are made at the Registrar's Office, Civic Centre, Canberra.

Marriages within the Territory are celebrated in accordance with the provisions of the Marriage Ordinance 1929–1938. This Ordinance, which closely follows the provisions of the Marriage Act of New South Wales, which it supersedes as regards the Australian Capital Territory, came into operation on 1st January, 1930.

CHAPTER XV.

LOCAL GOVERNMENT.

§ 1. Introduction.

1. **General.**—The statistics on Local Government operations are not entirely satisfactory, as they are incomplete, and not sufficiently comparable and up to date. Those on Local Government financial operations were improved, prior to the 1939–45 War, through the use by the State Statisticians of standard forms in supplying information on their respective States to the Commonwealth Statistician. The presentation of the statistics thus made available was only being developed when the war made it necessary to discontinue the returns. However, since the war these returns have been recommenced, and efforts are being made, as opportunity and circumstances permit, to widen the range of information presented on local government activities beyond the purely, or primarily, financial.

2. **Local Government Authorities.**—In each State of the Commonwealth there exists a system of local government whose powers and responsibilities are in general similar, and covers such matters as the upkeep and construction of roads, streets and bridges, water, sewerage and drainage systems and health and sanitary services, the supervision of building and the administration of regulations relating to items such as weights and measures, slaughtering, the registration of dogs, etc. In addition to these obligatory functions there are also a large number which may be performed by local government authority either with or without the consent of the ratepayers or the governor-in-council. These include transport facilities, electricity, gas and other business undertakings, hospitals, charitable institutions, recreation grounds, parks, baths. libraries, museums, etc.

The system is based on the principle of a grant of specific powers by the State legislatures to the local authorities, their autonomy, however, being more or less limited by the provision for general supervision by a department of the central government or by the governor-in-council. Otherwise, within the scope of the acts under which they are constituted or which they have to administer, they are responsible only to the ratepayers.

While the broad pattern of local government throughout the States of Australia is similar, the range of activities, election of officers, methods of valuation and rating powers, etc., differ considerably.

The areas over which local government bodies exercise general control, numbering 929, are known in New South Wales as cities, municipalities and shires; in Victoria as cities, towns, boroughs and shires; in Queensland as cities, towns and shires; in South Australia as municipal corporation areas and district council areas; in Western Australia as municipalities and road districts; and in Tasmania as municipalities. In New South Wales some local government authorities in an area have combined to provide services such as electricity supply and water, sewerage and drainage—e.g., the county councils. There are also some municipal units within shires known as urban areas. In Western Australia there are local health boards, whose personnel in most cases coincides with those of municipalities and road boards. Apart from the more thinly populated parts of New South Wales and South Australia and the Federal Territories, practically the whole of Australia comes within local government jurisdiction.

The financial statistics in § 2 following are classified under the headings of Ordinary Services and Business Undertakings. The former covers the obligatory and general functions referred to above. Business Undertakings include public utilities such as water supply, sewerage, electricity, gas, transport and hydraulic power undertakings, and other miscellaneous works such as abattoirs, quarries, ice works, cinemas, etc.

A description of the various systems of municipal governments in the different States, and their development from the earliest date, was published in 1919 by this Bureau in a separate work entitled *Local Government in Australia.* In this publication the systems in force at that time are examined, the development of local government in Australia is traced since its inception, and all available statistical information is collected.

3. **Semi-Governmental Authorities.**—In addition to local government authorities, there is a large number of authorities set up to control specific activities, whose forms of activity are often identical with some of those performed by either, or both, of the other classes of public authority—central government and local government—and a complete picture of any field of activity for a State or Australia as a whole cannot be obtained without reference to each class operating in that particular field. These semi-governmental authorities differ primarily from local government authorities in that their operations are restricted to the specific activity for which they were constituted—e.g. roads and bridges, or water and sewerage, or electricity and irrigation, or harbours, or tramways, etc.—i.e. each dispenses a specific service throughout an area as distinct from the general services of the local authority.

Sections 4 to 7 following, dealing with roads and bridges, water supply and sewerage, harbours and fire brigades, include particulars of the more important of these authorities which operate within the range covered by this chapter.

4. **Roads, Bridges, etc.**—The construction and maintenance of roads, bridges and ferries are generally part of the functions of local authorities, but in each State there exists a central road authority or a Government department whose duties relate to the construction and maintenance of " main " and " developmental " roads, the distribution of funds to local bodies, and the supervision and co-ordination of road construction and policy throughout the State. Although roads and bridges constructed and maintained directly by the Government or by the central road authority do not properly come under the heading of " Local Government ", they have been included in this chapter for the sake of convenience. Owing to difficulty in obtaining complete particulars of receipts and expenditure by the various local governing bodies in regard to roads under their control, the details of receipts and expenditure given in § 4 are those of the Government only, relating either to the supervisory board or commission in the State or to direct activities of a department. In § 2 some information is given of the revenue and expenditure of Local Government Authorities in respect of roads.

5. **Water Supply and Sewerage.**—In the cities of Sydney and Melbourne the control of water supply and sewerage is in the hands of special Boards, while in Adelaide and Perth these services are under the direct supervision of Government departments. In most of the other cities and towns, the municipal councils, or, in some cases, water trusts, are the controlling bodies which either construct the works out of their own resources or take them over after they have been constructed by the Government.

6. **Harbours.**—The majority of the harbours in Australia are managed by Boards, the members of which are either elected by persons interested, or are appointed by the Government. In a few instances, however, they are directly controlled by the Government.

7. **Fire Brigades.**—In all the States, the management of fire brigades is undertaken by Boards. These Boards usually comprise members elected by the councils of municipalities and insurance companies within the districts placed under their jurisdiction, and one or more members appointed by the Government. Occasionally volunteer or country fire brigades are represented.

8. **Other Local or Semi-Governmental Activity.**—The activities referred to above are not the only forms of local or semi-governmental undertakings. There are others, the most important being tramways and omnibus services and electricity and gas undertakings, which are not dealt with in this chapter, except to the extent that they are represented in the finances as shown in the following section. Chapter V.—Transport and Communication contains information on municipal transport services, while particulars of electricity and gas undertakings, although not shown separately, are included in the relevant sections in Chapter XXIV.—Manufacturing Industry. A special article on the generation and distribution of electricity in Australia is contained in Chapter XXV. of this issue.

§ 2. Local Government Authorities.

1. **Area, Population, Dwellings and Value of Ratable Property.**—(i) *New South Wales.* For purposes of local government the whole of the Eastern and Central land divisions and a small portion of the sparsely populated Western division have been divided into cities, municipalities (most principal towns) and shires (mainly large rural areas, some of which embrace important towns). At the end of 1949 the area incorporated was 184,000 square miles, or nearly three-fifths of the total area of the State.

The Local Government (Areas) Act 1948 repealed the Sydney Corporation Act 1932 which had regulated the operations of the Capital City. It unites the City of Sydney and certain areas, constituting the united area as a city; unites certain other areas or areas and parts of areas, constituting them as municipalities; and reconstitutes the Sydney County Council. All local government authorities in the State are now subject to the general provisions of the Local Government Act.

Municipalities and shires may combine to form county councils for the establishment and conduct of services of joint benefit, e.g., electricity, water, sewerage. There were 33 county councils and the Grafton and South Grafton Water Board at 30th June, 1950.

The area, population, dwellings and value of ratable property in the incorporated areas for the year ended 31st December, 1949 are shown in the table below. The valuations relate to ratable property only and exclude Government and other non-ratable property, whose value is not inconsiderable in the aggregate. In this table, particulars of dwellings are in accordance with the definition used in the 1947 Census, and are the results of information collected on the Census schedules. Occupied dwellings include individual private houses, flats and tenements, and dwellings other than private (boarding houses, hotels, caretakers' quarters, hospitals, educational establishments, etc.). Also included are portions of shared private houses in respect of which portions separate householders' schedules were furnished. Unoccupied dwellings include "week-end" and holiday dwellings and other dwellings temporarily unoccupied on the night of the Census. Dwellings being built are not included.

LOCAL GOVERNMENT AUTHORITIES, NEW SOUTH WALES : AREA, POPULATION, DWELLINGS AND VALUE OF RATABLE PROPERTY, 1949.

Local Bodies.	Number. (a)	Area.	Population.	Dwellings.(b)		Value of Ratable Property.		
				Occupied.	Unoccupied.	Unimproved Capital Value.	Improved Capital Value.	Assessed Annual Value. (c)
		'000 acres.	'000	No.	No.	£'000.	£'000.	£'000.
Metropolitan—								
Capital City ..	1	7	212	51,934	539	68,341	233,219	11,903
Other	26	148	1,322	324,120	2,229	113,184	401,734	30,593
Total	27	155	1,534	376,054	2,768	181,525	634,953	42,496
Outside Metropolitan Area	219	117,622	1,619	366,882	14,387	215,317	(d)	(d)
Grand Total ..	246	117,777	3,153	742,936	17,155	396,842	(d)	(d)

(a) From 1st January, 1949, the Local Government (Areas) Act 1948 amalgamated eight suburban municipalities with the Capital City. This, with other amalgamations, reduced the number of local government areas in the County of Cumberland from 66 to 39. (b) As at Census, 30th June, 1947. (c) Nine-tenths annual rental value of land with improvements thereon. (d) Not available.

(ii) *Victoria.* Local Government is established throughout the State, the various divisions being termed cities, towns, boroughs, or shires. The only unincorporated areas are French Island (42,000 acres) in Westernport Bay, Julia Percy Island (650 acres) off Port Fairy, and Tower Hill (1,350 acres) adjacent to the Borough of Koroit. Melbourne and Geelong were incorporated under special statutes prior to the establishment of a general system of local government, but are now subject to several provisions of the Local Government Act. The law relating to local government was consolidated by the Local Government Act 1946.

As from 1st January, 1947, the metropolitan area for statistical and health purposes was redefined by the inclusion of the city of Nunawading, the borough of Ringwood, the Broadmeadows and Campbellfield ridings of the shire of Broadmeadows, the Doutta Galla riding of the shire of Keilor and the shire of Mulgrave.

The area, population, dwellings and estimated value of ratable property in the incorporated areas for the year ended 30th September, 1950 are shown on the next page.

LOCAL GOVERNMENT AUTHORITIES, VICTORIA: AREA, POPULATION, DWELLINGS AND VALUE OF RATABLE PROPERTY, 1949–50.

Local Bodies.	Number.	Area.	Population.	Dwellings.(a)		Value of Ratable Property.	
				Occupied.	Unoccupied.	Improved Capital Value.	Net Annual Value.
		'000 acres.	'000	No.	No.	£'000.	£'000.
Metropolitan—							
Capital City	1	8	101	24,081	5	111,693	5,585
Other (b)	33	341	1,233	314,139	1	428,614	22,253
Total	34	349	1,334	338,220	6	540,307	27,838
Outside Metropolitan Area(c)	164	55,844	886	234,696	101	407,871	20,448
Grand Total ..	198	56,193	2,220	572,916	107	948,178	48,286

(a) Particulars of occupied and unoccupied dwellings are based on returns furnished by municipalities. These figures refer to number of units in all habitable buildings. They differ in basis from the figures published in the previous issue of the Year Book, which were derived from Census returns. (b) Includes the whole of the city of Heidelberg, the borough of Ringwood, and the whole of the shires of Braybrook, Broadmeadows and Keilor, whose parts do not all lie within the Metropolitan Area. (c) Excludes Yallourn area under the jurisdiction of the State Electricity Commission of Victoria.

Particulars of the unimproved capital value are not available.

(iii) *Queensland.* The whole of the State (except certain islands along the coast, the Dawson Valley Irrigation Area and the Somerset Dam Area) is incorporated into cities, towns and shires under the Local Authorities Act 1902 and its amendments. In June, 1949, the State Government rearranged the boundaries of the local authorities to the south of Brisbane, reducing their number by ten. The towns of Coolangatta and Southport were absorbed by the new town of South Coast; two new shires were created and eleven were abolished, being absorbed by the new shires and existing cities, towns and shires. The following table shows particulars of the area, population, dwellings and value of ratable property in the incorporated areas for the year ended 30th June, 1950:—

LOCAL GOVERNMENT AUTHORITIES, QUEENSLAND: AREA, POPULATION, DWELLINGS AND VALUE OF RATABLE PROPERTY, 1949–50.

Local Bodies.	Number.	Area.	Population. (a)	Dwellings.(a)		Unimproved Capital Value of Ratable Property.
				Occupied.	Unoccupied.	
		'000 acres.	'000.	No.	No.	£'000.
Capital City (b)	1	246	402	99,771	1,475	24,622
Outside Metropolitan Area ..	133	428,874	697	171,400	8,071	69,694
Total	134	429,120	1,099	271,171	9,546	94,316

(a) As at Census, 30th June, 1947. (b) City of Greater Brisbane.

Particulars of improved capital value and annual value are not available.

(iv) *South Australia.* The settled portion of South Australia is incorporated, being mostly under municipal corporations in the larger cities and towns, and district councils in the agricultural areas.

The following table shows the area, population, dwellings and value of ratable property in incorporated areas for the year ended 30th June, 1950.

LOCAL GOVERNMENT AUTHORITIES, SOUTH AUSTRALIA : AREA, POPULATION, DWELLINGS AND VALUE OF RATABLE PROPERTY, 1949–50.

Local Bodies.	Number.	Area.	Population.	Occupied Dwellings.	Value of Ratable Property.		
					Unimproved Capital Value.	Improved Capital Value.	Annual Value.
		'000 Acres.	'000.	No.	£'000.	£'000.	£'000.
Metropolitan—							
Capital City	1	4	35	8,199	12,084	36,000	1,823
Other	20	99	385	101,369	(b)	106,000	5,302
Total	21	103	420	109,568	(b)	142,000	7,125
Outside Metropolitan Area	122	34,402	265	69,055	(b)	109,000	5,442
Grand Total	143	34,505	685	178,623	(b)	251,000	12,567

(a) Particulars of unoccupied dwellings are not available. (b) Not available.

(v) *Western Australia.* In this State, Local Government is carried on by means of municipalities and district road boards. Certain functions are delegated to health boards, whose personnel, in most cases, coincides with those of the municipalities and district road boards. The following table shows particulars of the area, population, dwellings and value of ratable property in incorporated areas for the year ended 31st October, 1950 for municipalities, and the year ended 30th June, 1950 for district road boards.

LOCAL GOVERNMENT AUTHORITIES, WESTERN AUSTRALIA : AREA, POPULATION, DWELLINGS AND VALUE OF RATABLE PROPERTY, 1949–50.

Local Bodies.	Number.	Area.	Population.	Occupied Dwellings. (a)	Value of Ratable Property.		
					Unimproved Capital Value.	Improved Capital Value.	Annual Value.
		'000. Acres.	'000.	No.	£'000.	£'000.	£'000.
Municipalities—							
Metropolitan—							
Capital City ..	1	14	104	24,622	(b)	44,000	1,809
Other	8	11	75	18,961	(b)	16,454	851
Total	9	25	179	43,583	(b)	60,454	2,660
Outside Metropolitan Area	12	42	58	13,992	(b)	12,200	617
Total	21	67	237	57,575	(b)	72,654	3,277
District Road Boards—							
Other Metropolitan (c) ..	11	96	127	30,795	5,596	(b)	13
Outside Metropolitan Area	117	624,426	185	48,766	20,360	(b)	541
Total	128	624,522	312	79,561	25,956	(b)	554
All Authorities—							
Metropolitan—							
Capital City ..	1	14	104	24,622	(b)	44,000	1,809
Other	19	107	202	49,756	(b)	(b)	864
Total	20	121	306	74,378	(b)	(b)	2,673
Outside Metropolitan Area	129	624,468	243	62,758	(b)	(b)	1,158
Grand Total ..	149	624,589	549	137,136	(b)	(b)	3,831

(a) Particulars of unoccupied dwellings are not available. (b) Not available. (c) Includes part only (8,064 acres) of Swan River District situated in Metropolitan Area.

The method of valuation is not identical in the case of all district road boards, as in some the assessment is based on the unimproved capital value and in others partly on the unimproved capital value and partly on the annual value. The amounts shown are the totals for the areas rated on each valuation, and are not a function of each other.

(vi) *Tasmania.* The whole State is divided into municipal districts, Hobart and Launceston being incorporated under separate Acts. The following table shows particulars of the area, population, dwellings and value of ratable property in incorporated areas for the year ended 30th June, 1950.

LOCAL GOVERNMENT AUTHORITIES, TASMANIA: AREA, POPULATION, DWELLINGS AND VALUE OF RATABLE PROPERTY, 1949–50.

Local Bodies.	Number.	Area.	Population.	Dwellings.(a)		Value of Ratable Property.		
				Occupied.	Unoccupied.	Unimproved Capital Value.	Improved Capital Value.	Annual Value.
		'000 acres.	'000.	No.	No.	£'000.	£'000.	£'000.
Metropolitan—								
Capital City	1	18	58	13,597	56	5,413	17,510	1,284
Other (b)	2	99	25	4,560	331	1,413	4,519	345
Total	3	117	83	18,157	387	6,826	22,029	1,629
Outside Metropolitan Area	46	16,661	194	44,327	1,964	18,537	45,320	2,882
Grand Total ..	49	16,778	277	62,484	2,351	25,363	67,349	4,511

(a) As at Census, 30th June, 1947. (b) Comprises the whole of the Municipalities of Clarence and Glenorchy.

2. **Finances.**—(i) *General.* The following tables show the latest available financial statistics for Local Government Authorities. The figures relate to the year 1949–50, except for New South Wales where they relate to the year 1949.

(ii) *Ordinary Services.* (a) *Details*, 1949–50. In the returns of revenue and expenditure for 1949–50 in the following table, the proceeds from loans and expenditure thereof have been excluded, as have the operations of business undertakings controlled by the various Local Government Authorities. The profits resulting from the working of these undertakings, where taken into general revenue, have been included.

LOCAL GOVERNMENT AUTHORITIES : ORDINARY SERVICES—REVENUE AND EXPENDITURE, 1949–50.

Particulars.	N.S.W. (a)	Vic. (b)	Q'land. (c)	S. Aust. (c)	W. Aust. (d)	Tas. (c)	Total.
Number of Local Government Authorities ..	(e) 246	198	134	143	149	49	919
REVENUE (EXCLUDING LOAN RECEIPTS). (£.)							
Taxation—							
Rates (net)	9,681,981	6,437,476	4,848,715	1,623,847	1096066	667,782	24,428,615
Penalties	50,396	21,980			29	343	
Licences	224,339	66,372	49,780	34,943	27,050	9,721	412,205
Total	9,956,716	6,525,828	4,898,495	1,658,790	1,123,145	677,846	24,840,820
Public Works and Services—							
Sanitary and Garbage Services	1,098,163	373,096	921,329	53,918	192,410	44,099	2,683,015
Council Properties ..	1,068,454	767,994	726,276	162,301	329,706	92,265	3,146,996
Street Construction ..	441,532	311,850	53,733	(h) 131,305	60,270	2,246	1,000,716
Other..	(f) 885,221	(g) 680,242	32,343	56,358	62,457	31,963	1,748,584
Total	3,493,370	2,133,182	1,733,681	403,662	644,843	170,573	8,579,311
Government Grants—							
Roads	1,766,051	133,267	800,527	730,614	298,402	115,002	3,843,863
Other..	1,077,174	246,886	(i) 432,069	17,267	11,813	9,769	1,794,978
Total	2,843,225	380,153	1,232,596	747,881	310,215	124,771	5,638,841
Profits from Business Undertakings	..	269,784	15,730	..	51,077	..	336,591
Fees and Fines	..	29,169	411,458	43,867	638,209	77,749	1,471,155
All Other	..	116,639		63,406	90,658		
Total, Revenue ..	16,293,311	9,454,755	8,291,960	2,917,606	2,858,147	1,050,939	40,866,718
EXPENDITURE (EXCLUDING LOAN EXPENDITURE). (£.)							
General Administration ..	1,179,688	1,373,038	678,318	277,888	297,319	120,227	3,296,478
Debt Services (excluding Business Undertakings)—							
Interest	675,130	379,219	669,250	29,310	74,041	26,573	1,853,523
Redemption	(f) 1,321,096	560,589	857,162	151,186	155,187	54,668	3,099,888
Exchange	21,560	..	160,456	..	2,277	508	184,801
Other..	..	5,538	7,761	1,480	722	..	15,501
Total	2,017,786	945,346	1,694,629	181,976	232,227	81,749	5,153,713
Public Works and Services—							
Roads, Streets and Bridges	7,094,869	3,205,003	3,312,277	1,704,725	911,168	470,357	16,518,399
Health Administration ..	306,549	379,020	139,671	150,238	79,745	33,461	1,088,684
Sanitary and Garbage Services	1,467,943	730,047	767,653	178,080	248,281	53,152	3,445,156
Street Lighting ..	482,275	196,675	120,547	81,213	58,538	33,509	972,757
Council Properties ..	2,216,100	1,488,218	1,025,546	286,524	439,748	134,694	5,590,830
Other..	590,948	662,703	(j) 515,559	95,239	348,720	22,697	2,235,866
Total	12,158,684	6,661,666	5,701,253	2,496,019	2,086,200	747,870	29,851,692
Grants—							
Fire Brigades	225,561	202,643	95,152	(k)	36,729	12,005	572,090
Hospitals and Ambulances	63,183	59,197	1,778	(k)	2,492	2,736	140,659
Other Charities ..			852	5,612	2,070	2,739	
Other..	(l) 255,513	(m) 444,605	88,777	4,362	5,458	2,478	801,193
Total	544,257	706,445	186,559	9,974	46,749	19,958	1,513,942
All Other	393,628	50,759	118,816	..	145,558	80,157	788,918
Total, Expenditure	16,294,043	9,737,254	8,379,575	2,965,857	2,808,053	1,049,961	41,234,743
	less (n) 370,078	..	..	..	..	..	*less* 370,078
	15,923,965	9,737,254	8,379,575	2,965,857	2,808,053	1,049,961	40,864,665

(a) Figures for New South Wales relate to the year ended 31st December, 1949, and are on an income and expenditure basis as distinct from those of other States, which are on a cash basis. (b) Year ended 30th September, 1950. (c) Year ended 30th June, 1950. (d) Municipalities—Year ended 31st October, 1950 ; Road Districts—Year ended 30th June, 1950. (e) As from 1st January, 1949, the Local Government (Areas) Act 1948 amalgamated eight suburban municipalities with the Capital City. This, with other amalgamations, reduced the number of local government areas in the County of Cumberland from 66 to 39. (f) Includes interest from sinking fund investments for debt redemption, £161,137, and sales of residue-lands, £18,844, previously credited direct to sinking funds. (g) Includes £291,274 plant hire. (h) Includes £17,879 reimbursements from Highways Department for work done. (i) Includes £178,431 for sewerage and drainage. (j) Includes £210,098 for sewerage, mosquito control and drainage. (k) Compulsory contributions included under Public Works and Services. (l) To Main Roads Department. (m) Includes £190,304 to Country Roads Board. (n) This deduction offsets duplications caused by the inclusion above of particulars of expenditure on (i) the purchase from revenue of assets and the depreciation of those assets, and (ii) the depreciation of assets purchased from loans and the repayment of these loans. The amount deducted cannot be apportioned according to the various headings.

(*b*) *Years* 1938–39 *and* 1945–46 *to* 1949–50. The following table shows the revenue and expenditure (excluding loan) of local government authority ordinary services for the years 1938–39 and 1945–46 to 1949–50.

LOCAL GOVERNMENT AUTHORITIES: ORDINARY SERVICES—REVENUE AND EXPENDITURE.

(£.)

Year.	N.S.W.(*a*)	Victoria.(*b*)	Q'land.(*c*)	S. Aust.(*c*)	W. Aust.(*d*)	Tas.(*c*)	Total.
REVENUE (EXCLUDING LOAN RECEIPTS).							
1938–39 ..	10,657,409	6,070,551	4,177,632	1,578,688	1,447,154	518,755	24,450,189
1945–46 ..	9,256,534	5,904,597	4,874,703	1,554.280	1,441,370	597,945	23,629,429
1946–47 ..	10,562,205	6,476,264	5,480,877	1,835,326	1,720,290	680,549	26,755,511
1947–48 ..	11,587,287	7,270,196	6,399,888	2,162,229	2,066,424	766,819	30,252,843
1948–49 ..	13,524,992	8,190,347	7,035,155	2,526,530	2,136,790	895,920	34,609,734
1949–50 ..	16,293,311	9,454,755	8,291,960	2,917,606	2,858,147	1,050,939	40,866,718
EXPENDITURE (EXCLUDING LOAN EXPENDITURE).							
1938–39 ..	10,790,273	6,192,859	4,334,634	1,558,169	1,489,079	506,976	24,871,990
1945–46 ..	9,260,781	6,218,046	5,267,540	1,632,714	1,594,069	622,311	24,595,461
1946–47 ..	11,095,211	6,986,748	5,839,506	2,015,592	1,832,800	722,074	28,491,931
1947–48 ..	12,372,821	7,792,221	6,884,567	2,174,857	2,099,953	817,365	32,141,784
1948–49 ..	13,815,846	8,548,147	7,579,954	2,525,528	2,420,541	910,926	35,800.942
1949–50 ..	15,923,965	9,737,254	8,379,575	2,965,857	2,808,053	1,049,961	40,864,665

(*a*) Years ended previous 31st December. (*b*) Years ended 30th September. (*c*) Years ended 30th June. (*d*) Municipalities—Years ended 31st October; Road Districts—Years ended 30th June.

(iii) *Business Undertakings.* (*a*) *Details*, 1949–50. The table hereunder shows, for 1949–50, particulars of the revenue and expenditure, other than loan, of business undertakings under the control of local government authorities. These particulars are not included in the foregoing tables.

LOCAL GOVERNMENT AUTHORITIES: BUSINESS UNDERTAKINGS—REVENUE AND EXPENDITURE, 1949–50.

(£.)

Particulars.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Total.
REVENUE (EXCLUDING LOAN RECEIPTS).							
Water Supply and Sewerage—							
Rates	810,079		13,324	..	8,972	230,932	
Charges for Services and Sales of Products	216,326	94,288	1680219	1,304	4,237	67,791	3,643,597
Other (including Grants)	(*a*)265,612		224,223	..	163	26,127	
Total	1,292,017	94,288	1,917,766	1,304	13,372	324,850	3,643,597
Electricity and Gas—							
Rates	83,316		8,144	..	..	..	
Charges for Services and Sales of Products ..	13,727,854	4088630	2432697	249,327	486,791	..	21524363
Other (including Grants)	357,995		77,166	2,438	10,005	..	
Total	14,169,165	4,088,630	2,518,007	251,765	496,796	..	21.524.363
Railways, Tramways and Omnibuses— ..							
Rates	..	..	..	..	..	11,509	
Charges for Services and Sales of Products ..	..	9,992	2040204	..	..	426,076	2,572,036
Other (including Grants)	..		77,882	..	..	6,373	
Total	..	9,992	2,118,086	..	..	443,958	2,572,036
Other—	(*b*)	(*c*)	(*d*)	(*e*)	(*f*)	(*g*)	
Rates	..		..	..	..	91	
Charges for Services abd Sales of Products ..	870,362	327,846	42,075	18,388	12,992	26,220	1,319,190
Other (including Grants)	6,325		12,675	912	494	810	
Total	876.687	327,846	54,750	19,300	13,486	27,121	1.319.190
Grand Total ..	16,337,869	4,520,756	6,608,609	272.369	523.054	795,929	29,059.186

NOTE.—*See* next page for notes.

LOCAL GOVERNMENT AUTHORITIES: BUSINESS UNDERTAKINGS—REVENUE AND EXPENDITURE, 1949–50—*continued.*

(£.)

Particulars.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Total.
EXPENDITURE (EXCLUDING LOAN EXPENDITURE).							
Water Supply and Sewerage—							
Working Expenses	605,748	91,578	806,412	1,289	6,071	133,693	3,184,562
Depreciation	(*h*)−35,680		..	..	..	..	
Debt Charges	462,212		750,139	15	6,597	149,688	
Other (including Transfers to General Revenue and Construction) ..	..		169,934			36,866	
Total	1,032,280	91,578	1,726,485	1,304	12,668	320,247	3,184,562
Electricity and Gas—							
Working Expenses	12,279,521	4047281	2238249	230,763	403,478	..	22272100
Depreciation	(*h*)887,258		..	..	28,790	..	
Debt Charges	1,601,397		298,578	7,045	24,663	..	
Other (including Transfers to General Revenue and Construction) ..	..		141,233	31,811	52,033	..	
Total	14,768,176	4,047,281	2,678,060	269,619	508,964	..	22,272,100
Railways, Tramways and Omnibuses—							
Working Expenses	..	11,893	1818398	..	..	363,317	2,663,436
Depreciation	..		..	..	..	..	
Debt Charges	..		302,489	..	..	65,958	
Other (including Transfers to General Revenue and Construction) ..	..		76,635	..	..	24,746	
Total	..	11,893	2,197,522	..	..	454,021	2,663,436
Other—	(*b*)	(*c*)	(*d*)	(*e*)	(*f*)	(*g*)	
Working Expenses	836,051	343,376	48,265	19,314	13,541	18,043	1,315,038
Depreciation	(*h*)2,315		..	..	..	..	
Debt Charges	21,138		555	..	114	3,554	
Other (including Transfers to General Revenue and Construction) ..	..		4,750	2,000	..	2,022	
Total	859,504	343,376	53,570	21,314	13,655	23,619	1,315,038
Grand Total ..	16,659,960	4,494,128	6,655,637	292,237	535,287	797,887	29,435,136

(*a*) Includes Government grant, £191,796, for part of cost of new works borne by Government. (*b*) Abattoirs and ice-works. (*c*) Abattoirs, hydraulic power undertaking and quarries. (*d*) Municipal markets, ice-works, amusement park accommodation, hostel and cinemas. (*e*) Quarries. (*f*) Quarries, ice-works and abattoirs. (*g*) Abattoirs. (*h*) Net balance after deducting charge for debt redemption. The full amount of charge for debt redemption is included under debt charges.

NOTE.—Minus sign (—) indicates an excess of credits.

(*b*) *Years* 1938–39 *and* 1945–46 *to* 1949–50. This table shows the revenue and expenditure, other than loan, of local government business undertakings for the years 1938–39 and 1945–46 to 1949–50.

LOCAL GOVERNMENT AUTHORITIES: BUSINESS UNDERTAKINGS—REVENUE AND EXPENDITURE.

(£.)

Year.	N.S.W.(*a*)	Victoria.(*b*)	Q'land.(*c*)	S. Aust.(*c*)	W. Aust.(*d*)	Tas.(*c*)	Total.
REVENUE (EXCLUDING LOAN RECEIPTS).							
1938–39 ..	6,405,010	1,813·796	3,373,966	113,132	962,470	528,461	13,196,835
1945–46 ..	9,583,012	2,691,167	4,725,507	182,867	1,259,405	603,329	19,045,287
1946–47 ..	10,328,170	2,797,375	4,310,696	196,279	1,382,813	621,597	19,636,930
1947–48 ..	11,929,432	3,270,875	4,694,268	207,830	1,495,123	663,411	22,260,939
1948–49 ..	14,294,306	3,667,290	5,658,198	229,896	(*e*) 733,538	750,963	25,334,191
1949–50 ..	16,337,869	4,520,756	6,608,609	272,369	523,654	795,929	29,059,186
EXPENDITURE (EXCLUDING LOAN EXPENDITURE).							
1938–39 ..	5,556,123	1,802,972	3,256,263	123,356	935,052	513,666	12,187,432
1945–46 ..	9,068,181	2,668,730	4,723,246	162,937	1,177,146	593,503	18,393,743
1946–47 ..	9,846,851	2,734,143	4,327,861	198,325	1,327,648	634,890	19,069,718
1947–48 ..	11,704,990	3,272,629	4,869,383	229,604	1,452,802	698,264	22,227,672
1948–49 ..	14,394,453	3,597,041	5,701,314	258,702	(*e*) 755,793	736,647	25,443,950
1949–50 ..	16,659,960	4,494,128	6,655,637	292,237	535,287	797,887	29,435,136

(*a*)-(*d*) *See* notes to corresponding table on Ordinary Services. (*e*) Electricity undertaking taken over by State Electricity Commission on 20th December, 1948. Includes trading from 1st November, 1948 to 19th December, 1948.

(iv) *Loan Expenditure.* (*a*) *Details*, 1949–50. The table below shows particulars for 1949–50 of loan expenditure on works connected with the ordinary services and the business undertakings of local government authorities.

LOCAL GOVERNMENT AUTHORITIES: LOAN EXPENDITURE ON WORKS, 1949–50.

(£.)

Particulars.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Total.
ORDINARY SERVICES.							
Roads, Bridges, Streets, Footpaths, Drainage and Sewerage	1,064,747	431,454	1,705,309	329,780	252,638	315,439	7,579,808
Council Properties ..	574,805	169,000	370,784	215	51,983		
Parks, Gardens and Recreational Reserves ..	217,021	52,522		..	23,126		
Other	(*a*)913,423	271,654	661,698	1,052	173,158		
Total	2,769,996	924,630	2,737,791	331,047	500,905	315,439	7,579,808
BUSINESS UNDERTAKINGS.							
Water Supply	545,647	..	617,360	..	..	396,297	10,323,643
Sewerage	249,760	..	581,820	..	..		
Electricity and Gas ..	5,369,545	642,133	1,226,194	8,044	71,005		
Railways, Tramways and Omnibuses	..	..	385,064	..	..		
Other	191,155	38,348	1,271	..	..		
Total	6,356,107	680,481	2,811,709	8,044	71,005	396,297	10,323,643
Grand Total ..	9,126,103	1,605,111	5,549,500	339,091	571,910	711,736	17,903,451

(*a*) Includes advances for homes £197,787.

(*b*) *Years* 1938–39 *and* 1945–46 *to* 1949–50. The following table shows the loan expenditure on works connected with local government ordinary services and business undertakings during the years 1938–39 and 1945–46 to 1949–50.

LOCAL GOVERNMENT AUTHORITIES: LOAN EXPENDITURE ON WORKS.
(£.)

Year.	N.S.W.(*a*)	Victoria.(*b*)	Q'land.(*c*)	S. Aust.(*c*)	W. Aust.(*d*)	Tas.(*c*)	Total.
ORDINARY SERVICES.							
1938–39 ..	1,757,704	662,986	1,316,651	43,479	117,172	39,481	3,937,473
1945–46 ..	144,568	114,821	247,023	44,382	25,346	25,141	601,281
1946–47 ..	646,887	286,135	1,027,810	104,890	124,661	84,548	2,274,931
1947–48 ..	1,911,795	522,443	1,669,617	185,095	278,638	79,046	4,646,634
1948–49 ..	2,614,670	712,378	2,326,484	189,792	356,977	189,497	6,389,798
1949–50 ..	2,769,996	924,630	2,737,791	331,047	500,905	315,439	7,579,808
BUSINESS UNDERTAKINGS.							
1938–39 ..	1,481,484	452,374	941,911	9,542	76,280	232,687	3,194,278
1945–46 ..	425,886	211,365	507,780	..	2,500	43,978	1,191,509
1946–47 ..	961,005	228,263	974,396	..	47,050	117,815	2,328,529
1947–48 ..	1,842,304	418,186	1,327,630	..	58,782	95,664	3,742,566
1948–49 ..	4,038,922	654,619	2,109,248	16,900	36,794	196,499	7,052,982
1949–50 ..	6,356,107	680,481	2,811,709	8,044	71,005	396,297	10,323,643

(*a*) Years ended previous 31st December. (*b*) Years ended 30th September. (*c*) Years ended 30th June. (*d*) Municipalities—Years ended 31st October; Road Districts—Years ended 30th June.

§ 3. Local and Semi-Governmental Authorities' Debt.

1. **General.**—Statistics of Local and Semi-Governmental Debt for the years 1938–39 and 1946–47 to 1949–50 are given in the following paragraphs. Because of difficulties created by the war these statistics were not collected for the years 1941–42 to 1945–46. The information given covers all Local Government Authorities and those Semi-Governmental authorities responsible for the provision of the following services, viz.:—

New South Wales. Water Supply and Sewerage, Electricity Supply, Fire Brigades and Banking (including County Councils).

Victoria. Water Supply and Sewerage, Irrigation and Drainage, Harbours, Tramways, Electricity Supply, Fire Brigades, Marketing (Buying and Selling), Grain Elevators, Banking and Housing.

Queensland. Water Supply and Sewerage, Irrigation and Drainage, Harbours, Electricity Supply, Roads and Bridges, Trading Activities, n.e.i., Fire Brigades, Universities, Hospitals and Ambulances, Marketing (Buying and Selling and Agency), Industry Improvement and Miscellaneous.

South Australia. Irrigation and Drainage, Tramways, Electricity Supply, Fire Brigades, Hospitals and Ambulances, Marketing (Agency), Industry Improvement, Banking, Housing and Miscellaneous.

Western Australia. Water Supply and Sewerage, Irrigation and Drainage, Harbours, Tramways, Electricity Supply, Fire Brigades, Hospitals and Ambulances, Marketing (Agency) and Housing.

Tasmania. Harbours.

A detailed list of the authorities included is shown in *Finance Bulletin* No. 42, 1950–51, and the previous issue of the Year Book contained a list as at 30th June, 1947.

2. **Local and Semi-Governmental Authorities' Debt.**—(i) *Year* 1949–50. The following table provides a summary of new money loan raisings, provisions for the redemption of debt, debt outstanding and interest payable of local and semi-governmental authorities for the year ended 30th June, 1950. For greater detail *see Finance Bulletin* No. 42, 1950–51, published by this Bureau.

LOCAL AND SEMI-GOVERNMENTAL AUTHORITIES: NEW MONEY LOAN RAISINGS, REDEMPTION, DEBT AND INTEREST PAYABLE, 1949–50.

(£'000.)

Particulars.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Total.
LOCAL GOVERNMENT AUTHORITIES.							
New Money Loan Raisings—							
From Government	192	12	962	312	20	..	1,498
From Public	5,724	1,621	5,142	67	589	700	13,843
Total	5,916	1,633	6,104	379	609	700	15,341
Funds Provided for Redemption—							
Government Loans ..	47	9	330	113	1	7	507
Loans due to Public ..	1,781	738	1,185	53	188	217	4,162
Total	1,828	747	1,515	166	189	224	4,669
Accumulated Sinking Fund Balance	5,613	1,582	1,524	1	263	351	9,334
Debt—							
Due to Government ..	742	247	8,319	570	32	122	10,032
Due to Banks (Net Overdraft)	70	332	56	37	3	39	537
Due to Public Creditor (*a*)	34,407	12,231	31,044	550	2,184	3,492	83,908
Total (*a*)	35,219	12,810	39,419	1,157	2,219	3,653	94,477
Maturing Overseas (*a*)(*b*) ..	1,812	..	2,826	..	..	200	4,838
Annual Interest Payable (*a*)	(*c*)	477	1,444	27	85	133	(*c*)
SEMI-GOVERNMENTAL AND OTHER PUBLIC AUTHORITIES.							
New Money Loan Raisings—							
From Government ..	2	6,753	1,465	4,764	2,765	..	15,749
From Public (*a*)	9,329	20,002	3,074	10	9	250	32,674
Total	9,331	26,755	4,539	4,774	2,774	250	48,423
Funds Provided for Redemption—							
Government Loans ..	253	200	326	218	67	11	1,075
Loans due to Public ..	2,065	2,780	418	1	58	20	5,342
Total	2,318	2,980	744	219	125	31	6,417
Accumulated Sinking Fund Balance	8,440	4,754	8	249	9	2	13,462
Debt—							
Due to Government ..	20,376	27,759	13,047	17,275	11,340	122	89,919
Due to Banks (Net Overdraft)	1,852	1,165	321	65	20	..	3,423
Due to Public Creditor (*a*)	93,722	85,798	10,880	11,348	394	1,057	203,199
Total (*a*)	115,950	114,722	24,248	28,688	11,754	1,179	296,541
Maturing Overseas (*a*)(*b*) ..	8,658	3,566	..	767	..	..	12,991
Annual Interest Payable (*a*)	(*c*)	3,778	860	971	454	43	(*c*)

(*a*) Includes debt or interest payable in London and New York. The former is expressed in United Kingdom currency, the latter is payable in dollars which have been converted at the rate of 4.8665 dollars to £1. (*b*) Included in debt figures above. (*c*) Not available.

In this and the following tables, debt includes all liabilities for which arrangements have been made for repayment over a period of one year or more, and net overdrafts. Interest capitalized and amounts due for the capital cost of assets or for services rendered which are to be repaid over a period of one year or more are included. Current liabilities, such as interest accrued (but not capitalized), trade creditors, amounts held in trust and other debts which are to be repaid in less than one year are not included. Net overdraft is the gross overdraft of all funds less all bank credit balances (including fixed deposits) which do not form part of a sinking fund to repay a loan. New loans raised during the year include new loan liabilities incurred during the year, loans raised to repay indebtedness to the Government, and interest capitalized. Loans raised and redeemed within the year, increases in overdrafts and loans raised for conversion or redemption of existing debt are excluded. Funds provided for redemption include instalments of principal repaid and amounts credited to sinking funds established for the purpose of repaying the debt on maturity. Amounts provided for redemption from loans raised for that purpose are excluded.

(ii) *Years* 1938–39 *and* 1946–47 *to* 1949–50. In the following table a summary is given of new money loan raisings, provisions for the redemption of debt and debt outstanding of local and semi-governmental authorities for the years 1938–39 and 1946–47 to 1949–50.

LOCAL AND SEMI-GOVERNMENTAL AUTHORITIES, AUSTRALIA: NEW MONEY LOAN RAISINGS, REDEMPTION AND DEBT.

(£'000.)

Particulars.	1938–39.	1946–47.	1947–48.	1948–49.	1949–50.
LOCAL GOVERNMENT AUTHORITIES.					
New Money Loan Raisings—					
From Government	371	285	680	841	1,498
From Public	7,060	6,260	8,502	11,242	13,843
Total	7,431	6,545	9,182	12,083	15,341
Funds provided for Redemption—					
Government Loans	2,141	440	499	675	507
Loans due to Public	2,995	3,162	3,514	3,749	4,162
Total	5,136	3,602	4,013	4,424	4,669
Accumulated Sinking Fund Balance ..	(*a*)	10,510	10,376	9,950	9,334
Debt—					
Due to Government	13,207	8,876	9,029	9,051	10,032
Due to Banks (Net Overdraft) ..	1,544	259	337	435	537
Due to Public Creditor(*b*) ..	76,582	61,512	66,734	73,766	83,908
Total(*b*)	91,333	70,647	76,100	83,252	94,477
Maturing Overseas(*b*)(*c*)	17,893	7,807	7,326	6,775	4,838
SEMI-GOVERNMENTAL AUTHORITIES.					
New Money Loan Raisings—					
From Government	1,524	7,013	8,084	10,740	15,749
From Public	7,038	17,968	11,118	18,046	32,674
Total	8,562	24,981	19,202	28,786	48,423
Funds provided for Redemption—					
Government Loans	699	862	1,034	1,239	1,075
Loans due to Public	1,146	2,253	2,437	5,101	5,342
Total	1,845	3,115	3,471	6,340	6,417
Accumulated Sinking Fund Balance ..	(*a*)	12,109	12,755	13,139	13,462
Debt—					
Due to Government	(*d*)44,817	57,880	64,747	76,055	89,919
Due to Banks (Net Overdraft) ..	2,006	923	1,495	2,793	3,423
Due to Public Creditor(*b*)	118,506	150,844	159,895	173,768	203,199
Total(*b*)	*d* 165,329	209,647	226,137	252,616	296,541
Maturing Overseas(*b*)(*c*)	12,088	16,740	16,665	14,655	12,991

(*a*) Not available. (*b*) Includes debt in London and New York. The former is expressed in United Kingdom currency, the latter is payable in dollars which have been converted at the rate of 4.8665 dollars to £1. (*c*) Included in debt figures above. (*d*) Approximate only.

§ 4. Roads and Bridges.

1. **Commonwealth Government Grants.**—The following table shows particulars of allocations to the several States from the Commonwealth Consolidated Revenue Fund, under the Federal and Commonwealth Aid Roads and Works Acts, for road construction, maintenance, repair and other works connected with transport during the years 1938–39 and 1945–46 to 1949–50. Allocations for the construction and maintenance of strategic roads and for the promotion of road safety practices made in the years 1947–48 to 1949–50 are excluded. The aggregate amounts payable under the relevant acts from 1922–23 to 1949–50 for the purposes outlined above are also shown. Further particulars of these grants appear in Chapter XVII.—Public Finance.

ROAD CONSTRUCTION, MAINTENANCE, ETC.: GRANTS BY COMMONWEALTH GOVERNMENT.
(£'000.)

Year ended 30th June—	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Total.
1939 (*a*)	1,199	747	815	474	819	213	4,267
1946 (*a*)	935	582	636	369	639	167	3,328
1947 (*a*)	1,350	841	918	533	923	240	4,805
1948 (*b*)	2,017	998	1,102	631	1,102	287	6,137
1949 (*b*)	2,003	1,236	1,363	781	1,363	355	7,101
1950 (*b*)	2,472	1,526	1,683	965	1,683	438	8,767
Aggregate, years 1922–23 to 1949–50	22,341	14,089	15,203	8,924	15,339	3,995	79,891

(*a*) Under Federal Aid Roads and Works Acts. (*b*) Under Commonwealth Aid Roads and Works Acts, except for £398,830 to New South Wales in 1947–48 under Federal Aid Roads and Works Acts, representing amounts not drawn by that State during 1943–44.

In addition to the foregoing amounts, financial assistance from loan fund has been granted by the Commonwealth Government to the States for road construction. Such assistance has not been granted in recent years. At 30th June, 1950 the aggregate amount was £249,686.

2. **New South Wales.**—(i) *General.* A central road authority was created by legislation early in 1925 for the purpose of providing improved and uniform standards of construction and maintenance of the principal roads, and to administer Governmental subsidies for work on those roads. This authority (now organized as the Department of Main Roads) exercises control over Governmental activities in connexion with road works, these activities embracing works on main and developmental roads throughout the State, all roads in the unincorporated portion of the Western Division, and proclaimed national works, principally bridges and ferries, constructed from Government funds. The department co-operates with the municipal and shire councils in the work of constructing and maintaining a well-organized system of main highways.

In the metropolitan district the whole cost of the construction and maintenance of main roads is paid from the funds of the Main Roads Department, while in the country districts assistance in respect of road works may be granted for any area through which a main road passes. The cost of constructing developmental roads and works is borne in full by the Main Roads Department, but local councils are required to maintain them in satisfactory condition. For other roads the cost of both construction and maintenance work is generally chargeable to the revenue of local authorities, although Governmental assistance is not infrequently granted for works of construction and re-construction. In the Western Division the full cost of all roads and bridges is met by the Department of Main Roads.

The New South Wales Transport and Highways Commission was constituted in 1950 for the purpose of securing an efficient and integrated system of public transport by rail, road, air, sea and inland waterways within the State. Among others, the Commissioner for Main Roads, who is one of the eight members of the Commission, is subject to control and direction by the Commission in the exercise of any of his powers, authorities, duties and functions.

The general system of road communication throughout the State is made up of main roads classified as follows:—

State Highways—the principal avenues of communication between the coast and the interior or throughout the State, connecting with such avenues in other States.

Trunk Roads—forming with the State highways the framework of the general system of intercommunication throughout the State.

Ordinary Main Roads—used principally by through traffic as a means of intercommunication between towns or important centres of population. Public roads, except those within the City of Sydney, may be proclaimed as main roads on the recommendation of the Commissioner for Main Roads, who takes into consideration representations made by councils concerned, availability of funds for construction and maintenance purposes, and the value as connecting links between centres of population or business.

In addition, there are :—

Secondary Roads—in the metropolitan area of Sydney, carrying a substantial amount of through traffic and relieving neighbouring main roads of traffic which they would otherwise have to bear.

Developmental Roads—serving to develop a district or area of land by improving or providing access to a railway station or a shipping wharf, or to a road leading to a railway station or a shipping wharf.

(ii) *Length of Roads.* (*a*) *Proclaimed Roads.* The following table shows lengths of proclaimed roads at 30th June, 1950, according to class of road :—

PROCLAIMED ROADS, NEW SOUTH WALES : LENGTHS, 30th JUNE, 1950.

(Miles.)

Division.	Main Roads.				Secondary Roads.	Developmental Roads.	Total.
	State Highways.	Trunk Roads.	Ordinary Main Roads.	Total.			
Eastern and Central	5,204	2,672	9,701	17,577	(*a*) 68	2,783	20,428
Western	1,309	1,359	2,927	5,595	..	..	(*b*) 5,595
Total	6,513	4,031	12,628	23,172	68	2,783	26,023

(*a*) Metropolitan area. (*b*) Excludes 2,617 miles of unclassified roads, the responsibility of the Department.

During 1949–50 the following roads were proclaimed or declared :—294 miles of new main roads and extensions of existing main roads, and 85 miles of new developmental roads.

The length of main and secondary roads maintained by the Department of Main Roads at 30th June, 1950 (excluding the Western Division) was 2,538 miles (14 per cent.), while the length maintained by Councils was 15,107 miles (86 per cent.). The proportions of the several classes of main roads maintained by Department and Councils respectively were :—State highways, 37 per cent., 63 per cent. ; trunk roads, 2 per cent., 98 per cent ; ordinary main roads, 6 per cent., 94 per cent. ; secondary roads, 13 per cent., 87 per cent. In the County of Cumberland the Department maintained 58 per cent. of the roads (523 miles).

(*b*) *Composition of Roads.* In 1948 the total length of all roads in New South Wales was estimated at 126,272 miles, including 7,730 miles in the Western Division. The lengths of roads, according to their composition or nature, were as follows :—cement concrete, 386 miles ; asphaltic concrete, 195 miles ; tar or bituminous macadam, 4,178 miles ; surface water-bound macadam, 3,849 miles ; water-bound macadam, 2,367 miles ; gravel or crushed rock, 31,693 miles ; formed only, 27,454 miles ; cleared or natural surface only, 56,150 miles.

(iii) *Main Roads Department.* (*a*) *General.* Progress has continued with the implementation of the Main Roads Department plan for main road development in the metropolis and the County of Cumberland. This plan has been included in the Cumberland County Council planning scheme for the development and improvement of the County of Cumberland. Surveys and designs have been advanced, and the acquisition of land is proceeding, in connexion with the planned Newcastle and District Arterial Road System and Wollongong–Port Kembla District Main Roads System.

An investigation into the extent and classification of country main roads in the light of present and future traffic needs was completed during 1949–50.

In addition to its construction and maintenance work on roads, the Main Roads Department is engaged on a scheme for widening metropolitan roads and the acquisition of land required to implement approved schemes has been proceeding.

During 1949–50, 25 new bridges were completed on main roads by the Department and councils. Important work which has been continued included work on a steel and concrete bridge over Iron Cove between Balmain and Drummoyne, Sydney (length 1,536 feet) and on a reinforced concrete bridge over a diversion of Cook's River (length 566 feet).

(*b*) *Receipts and Payments.* The funds of the Department of Main Roads are derived principally from taxation of motor vehicles, contributions by the Commonwealth Government under the Federal and Commonwealth Aid Roads and Works Acts (*see* Chapter XVII.—Public Finance, for some particulars of the basis and distribution of grants under these Acts and par. 1 of this section, page 658, for particulars of the amounts paid in recent years), contributions by municipal and shire councils, and special (not statutory) assistance by the State Government by way of loan moneys or special grants from revenue funds. Receipts and payments for the four years 1946–47 to 1949–50 compared with the income and expenditure for 1938–39 are shown below.

DEPARTMENT OF MAIN ROADS, NEW SOUTH WALES: RECEIPTS AND PAYMENTS.

(£.)

Item.	1938–39. (*a*)	1946–47.	1947–48.	1948–49.	1949–50.
RECEIPTS.					
Motor Vehicle Taxation, and Registration and Licence Fees	2,018,556	2,081,870	2,266,351	2,516,423	2,744,617
Federal and Commonwealth Aid Roads and Works Acts ..	1,176,039	1,310,459	*b*1,851,324	1,436,815	1,777,469
Councils' Contributions ..	250,679	244,043	249,674	237,598	285,478
Consolidated Revenue (State) ..	..	..	..	10,000	..
Loans from State Government ..	302,643	400,000	300,000	..	..
Grants and Contributions from State Government and Departments, etc.	13,549	10,117	53,095	63,295	9,909
Commonwealth Funds for Defence and Other Works	..	26,127	38,633	55,365	142,031
Hire of Plant and Motor Vehicles	..	191,400	269,018	314,006	340,016
Suspense Accounts	..	2,694	3,574	62,826	1,080
Other	54,782	132,528	107,570	111,719	149,415
Total	3,816,248	4,399,238	5,139,239	4,808,047	*c*5,450,015
PAYMENTS.					
Roads and Bridges in New South Wales—					
Construction	1,736,898	1,082,087	1,402,546	1,851,985	2,303,637
Maintenance	1,519,929	2,222,637	2,483,366	2,371,632	2,856,508
Roads and Bridges outside New South Wales	..	— 1,551	2,232	— 57	..
Other Works	..	82,822	14,708	13,087	9,134
Debt Charges—					
Interest, Exchange, etc. ..	152,469	161,794	138,124	126,964	121,895
Sinking Fund and Repayments	200,591	99,967	(*d*)776,444	95,697	40,861
Repairs and Expenses, Plant and Motor Vehicles	..	138,538	122,077	183,004	220,007
Purchase of Assets	..	268,581	148,059	98,538	292,084
Suspense Accounts	..	..	108,359	2	19,538
Administration, etc.	100,583	170,990	185,179	220,939	246,226
Other	914	37,177	38,670	37,613	97,600
Total	3,711,384	4,263,042	5,419,764	4,999,404	*c*6,207,490

(*a*) Income and expenditure. (*b*) Includes £398,830 not drawn by State during 1943–44. (*c*) Excludes £500,000 transferred from the County of Cumberland Main Roads Fund to the Country Main Roads Fund. (*d*) Includes £696,096 to liquidate certain outstanding liabilities before due dates.

The figures shown above represent the aggregate receipts and payments of three funds—the County of Cumberland Main Roads Fund, the Country Main Roads Fund and the Developmental Roads Fund. From 1st January, 1925 to 30th June, 1950 receipts amounted to £97,127,266 and payments to £95,619,042. Particulars of the individual funds are—County of Cumberland, receipts £26,985,763, payments £25,635,993; Country, £66,474,431, £66,441,844; Developmental, £3,667,072, £3,541,205.

The total expenditure on roads, streets and bridges in the State by all authorities during the years 1938–39 and 1946–47 to 1949–50 was, respectively, £8,894,099, £7,201,401, £8,934,403, £10,479,716 and £12,569,525. These figures are approximate and they include expenditure on construction, maintenance and direct administration, but not on debt charges. Expenditure on the Sydney Harbour Bridge is not included.

(c) *Sydney Harbour Bridge.* The Sydney Harbour Bridge was opened for traffic on 19th March, 1932. The main span is 1,650 feet and the clearance for shipping 170 feet from high water level. The deck, 160 feet wide, carries a roadway, two railway tracks and two tramway tracks, and there is also a footway on each side. During 1949–50 the number of toll lanes was increased from six to twelve by the construction of a new toll barrier, thus relieving traffic congestion. The capital cost of the bridge to the 30th June, 1950, was £9,743,252, but this amount will be reduced by approximately £273,000 on the disposal of all surplus resumed property. The portion met from repayable loan funds, over £8,000,000, is to be repaid over a period of 53 years, ending approximately in 1985. The accumulated balance of the Bridge Account to 30th June, 1950 showed a deficiency of £151,448. The following table shows income and expenditure for the years 1938–39 and 1946–47 to 1949–50 :—

SYDNEY HARBOUR BRIDGE, NEW SOUTH WALES : INCOME AND EXPENDITURE.

(£.)

Item.	1938–39.	1946–47.	1947–48.	1948–49.	1949–50.
INCOME.					
Road Tolls	278,297	321,496	352,488	380,795	438,898
Railway Passenger Tolls ..	103,697	130,561	130,460	132,662	130,729
Tram and Omnibus Passenger Tolls	38,738	26,607	26,380	26,996	27,394
Other	8,366	9,224	9,801	11,349	12,915
Total	429,098	487,888	519,129	551,802	609,936
EXPENDITURE.					
Maintenance and Improvement ..	36,739	52,936	56,130	66,475	73,934
Interest, Exchange, etc. ..	334,797	303,381	288,357	274,057	270,061
Sinking Fund	40,564	65,531	66,272	67,887	68,949
Other	12,194	15,939	23,064	26,615	55,365
Total	424,294	437,787	433,832	435,034	468,309

During 1949–50, 23,136,000 rail travellers, 25,001,000 tram and omnibus travellers, and 20,600,000 road travellers in 11,841,000 road vehicles crossed the bridge, contributing respectively, 22 per cent., 5 per cent., and 73 per cent. of the total toll revenue.

3. **Victoria.**—(i) *General.* With the object of improving the main roads of the State the Country Roads Board was established by legislation passed in 1912. The principal duties of the Board are to determine the main roads, State highways, tourists' roads, etc., to inquire into the State's resources in road materials and the most effective methods of road construction and maintenance, and to recommend deviations in existing roads or the construction of new roads in order to facilitate communication or to improve the conditions of traffic.

(ii) *Length of Roads.* (*a*) *Declared Roads.* The total length of declared roads in Victoria at 30th June, 1950, was 14,303 miles, classified as follows :—State highways, 3,849 miles; main roads, 9,710 miles; tourists' roads, 402 miles; forest roads, 342 miles. The total length of the surface treated (black) system included in the foregoing totals was 6,468 miles or 45.2 per cent.

(*b*) *Composition of Roads.* It is estimated that, in addition to the 14,303 miles of classified roads as above, there were about 50,000 miles of more important unclassified roads. The latest detailed estimate of the length of roads and streets in Victoria (as at 30th September, 1948) provides the following information :—Wood or stone, 62 miles ; portland cement concrete, 150 miles ; asphaltic concrete and sheet asphalt, 202 miles ; tar or bitumen surface seal, 10,241 miles ; water-bound macadam, gravel, sand and hard loam pavements, 28,418 miles ; formed only, 23,901 miles ; surveyed only, 38,437 miles ; total 101,411 miles.

(iii) *Country Roads Board.* (*a*) *General.* During 1948–49 and 1949–50, respectively, 784 miles and 885 miles of declared roads under the Board's control were treated with bitumen. In addition, 43 miles (1948–49) and 53 miles (1949–50) of undeclared roads, for which the Board contributed funds were similarly treated. Work for other authorities carried out by the Board's plant amounted to 82 miles and 80 miles respectively. The total mileages of bitumen treatment carried out were 909 miles in 1948–49 and 1,018 in 1949–50. Of the work on the roads under the Board's control, 306 miles in 1948–49 related to State highways and 365 miles in 1949–50

During 1949–50, 135 bridge projects of a total value of £221,037 were initiated. Of these new projects, 42 of a total value of £114,813 were supervised by the Board and 93 of a total value of £106,224, were supervised by municipalities. Bridge construction work carried out during the year was below that necessary to strengthen or renew the bridges throughout the State within a reasonable period.

Despite delays occasioned by labour difficulties continuous progress was maintained during the year on the Swan street Bridge, Melbourne, for which the Country Roads Board is the constructing authority.

(*b*) *Receipts and Payments.* Funds created under the Act were the Country Roads Board Fund, the Loan Account and the Developmental Roads Loan Account. Particulars of the operations of these funds, together with those of the Federal and Commonwealth Aid Roads and Works Account, are given hereunder :—

Country Roads Board Fund. All fees (other than fees for licences to drive motor cars prior to 1949–50) and fines under the Motor Car Act, and all registration fees and fines for traction engines, less cost of collection of such fees and fines are credited to this fund. Particulars of receipts and payments connected with the Federal and Commonwealth Aid Roads and Works Acts, Commonwealth Defence Works and several other funds are not included therein (*see* next page for particulars). Receipts and payments for the years 1938–39 and 1946–47 to 1949–50 were as follows :—

COUNTRY ROADS BOARD FUND, VICTORIA : RECEIPTS AND PAYMENTS.

(£.)

Item.	1938–39.	1946–47.	1947–48.	1948–49.	1949–50.
RECEIPTS.					
Motor Vehicle Registration Fees . .	1,690,962	1,762,796	1,963,555	2,133,717	2,555,812
Drivers' Licence Fees	. .	. .	. .	. .	131,678
Municipalities' Payments . .	318,878	276,477	302,905	336,470	313,743
Stores and Materials	233,104	411,750	598,080	376,696	571,015
Hire of Plant	53,724	181,936	230,982	230,976	375,719
Other	117,341	206,004	241,210	277,475	296,440
Total	2,414,009	2,838,963	3,336,732	3,355,334	4,244,407

COUNTRY ROADS BOARD FUND, VICTORIA: RECEIPTS AND PAYMENTS—*continued.*

(£.)

Item.	1938–39.	1946–47.	1947–48.	1948–49.	1949–50.
PAYMENTS.					
Maintenance of Roads and Murray River Bridges and Punts ..	1,205,069	1,416,659	1,770,918	927,718	1,851,969
Relief to Municipalities ..	240,170	220,704	220,682	210,579	201,328
Interest, Sinking Fund, etc.—					
Recoup to Consolidated Revenue—					
Interest, etc.	282,484	294,471	296,076	296,964	340,224
Sinking Fund	25,794	25,091	25,262	24,489	
Municipalities' Repayments, etc.	119,167	105,546	104,295	103,290	102,587
Plant, Stores and Materials ..	310,332	817,797	1,043,506	797,367	868,561
Other (including Administration)	230,125	369,930	520,811	598,539	985,930
Total	2,413,141	3,250,198	3,981,550	2,958,946	4,350,599

Country Roads Board Loan Account. Loans have been authorized from time to time under the Country Roads Acts for permanent works on main roads and State highways. During the years ended 30th June, 1949 and 1950, respectively, receipts amounted to £437,529 and £391,867, and payments to £407,304 and £343,953. The total expenditure to 30th June, 1950 was £5,823,539.

Developmental Roads Loan Account. This fund was created for the purpose of constructing and maintaining subsidiary or developmental roads. Loan moneys raised were exhausted at 30th June, 1937, the total expenditure at that date being £6,425,758.

Federal and Commonwealth Aid Roads and Works Account. Revenue and expenditure in respect of the Federal and Commonwealth Aid Roads and Works Account, particulars of which are not included above, were as follows :—

(£.)

Item.	1938–39.	1946–47.	1947–48.	1948–49.	1949–50.
Revenue	716,019	813,024	993,144	1,201,971	1,540,233
Expenditure(*a*)	767,767	554,682	1,338,301	1,300,818	994,400

(*a*) Excludes amounts spent on maintenance and repairs of public roads adjoining, or of approach to, Commonwealth properties in Victoria (*see* table following).

Total Expenditure. The total expenditure by the Board on road construction and maintenance during each of the five years 1938–39 and 1946–47 to 1949–50 was as follows :—

COUNTRY ROADS BOARD, VICTORIA : EXPENDITURE ON ROADS.

(£.)

Item.	1938–39.	1946–47.	1947–48.	1948–49.	1949–50.
State Highways—Maintenance, etc. (*a*)	453,708	597,180	1,181,382	894,600	1,340,588
Main Roads—Construction(*a*) ..	224,290	95,168	75,743	12,304	5,801
Maintenance(*a*) ..	802,920	905,344	1,283,619	1,087,120	1,217,829
Developmental Roads—Construction, etc. (*a*)	468,122	252,946	436,467	458,473	378,179
Tourists' Roads—Construction, etc. (*a*)	77,694	96,302	98,662	117,477	149,841
Forest Roads—Maintenance, etc.	..	19,770	29,342	22,150	44,174
Murray River Bridges and Punts—Maintenance	4,067	4,630	4,004	5,946	6,022
Roads adjoining Commonwealth Areas—Maintenance, etc. ..	13,321	4,888	3,407	3,247	735
Unemployment Relief Works ...	54,662	9,979	..	..	..
Swan-street Bridge	..	..	15,178	37,769	41,867
Total	2,098,784	1,986,207	3,127,804	2,639,086	3,185,036

(*a*) Includes amounts contributed by the Commonwealth Government under the provisions of the Federal and Commonwealth Aid Roads and Works Acts.

4. **Queensland.**—(i) *General.* Under the Main Roads Act 1920 a Main Roads Board was constituted, consisting of three members appointed by the Governor-in-Council. In 1925 the Board was abolished and its powers conferred upon a single Commissioner. The duties of the Commissioner are to carry out surveys and investigations necessary to determine State highways, main, developmental, secondary, mining access, farmers' and tourist roads and tourist tracks, and the responsibility for building and maintaining these declared roads is largely that of the Commissioner. Roads of purely local importance are constructed and maintained by local authorities. In many cases construction is subsidized by the State Government by means of Treasury loans. Other roads are built by the Public Estate Improvement Branch of the Lands Department in order to open up areas of previously inaccessible or undeveloped country.

(ii) *Length of Roads.* (*a*) *Declared Roads.* The total length of declared roads in Queensland at 30th June, 1950 was 20,607 miles, comprising State highways, 7,610 miles; main roads, 10,876 miles; developmental roads, 245 miles; secondary roads, 627 miles; mining access roads, 686 miles; farmers' roads, 276 miles; tourist roads, 285 miles; tourist tracks, 2 miles. During 1949–50, 592 miles were added to the list. The length of roads improved in Queensland from the date of commencement of work under the Main Roads Acts 1920–1943 to 30th June, 1950 was 9,414 miles (46 per cent.). At that date, also, 1,462 miles of new road construction and 947 miles of stage construction work were proceeding.

(*b*) *Composition of Roads.* The total length of roads and streets in Queensland at 30th June, 1950 was:—Concrete, 90 miles; bitumen, 4,113 miles; macadam, 9,288 miles; other formed, 44,977 miles; unconstructed, 76,107 miles; total, 134,575 miles.

(iii) *Main Roads Commission.* (*a*) *General.* During 1949–50 (1948–49 in parentheses) the Commission completed 346 miles (225 miles) of roads including new construction and stage construction. Bridges of all types to a length of 3,943 (3,008) linear feet were constructed during 1949–50 (1948–49), bringing the total constructed by the Commission at 30th June, 1950 to 151,373 feet, approximately 29 miles. In addition, at 30th June, 1950, 5,451 feet were under construction. These figures exclude particulars of the Fitzroy River and Burdekin River bridges which are special projects.

The first of these projects is a joint operation being carried out by the Main Roads Commission and the Rockhampton City Council. The design provides for a bridge 1,210 feet long, at a total estimated cost, including approaches, of approximately £426,000, one half being financed under the terms of the Main Roads Act. The total expenditure to 30th June, 1950 was approximately £345,000. The bulk of the work completed to 30th June, 1950 has been on pier foundations and approaches. The second project is a combined road and rail bridge over the Burdekin River, with an overall length, including approaches, of 3,620 feet, estimated to cost about £1,900,000. This work, the largest single post-war project actually under construction in Queensland, had been advanced to a stage at 30th June, 1950, where six of the nine caissons designed for the river bed had been sunk to foundation level.

During 1949–50, construction was seriously impeded by heavy rains and floods; this affected costs, which at the end of the financial year totalled approximately £729,000.

(*b*) *Receipts and Payments.* The funds of the Main Roads Commission are obtained chiefly from motor vehicle registration and collections, fees, etc., under the Transport Acts, contributions under the Federal and Commonwealth Aid Roads and Works Acts, and loans, grants and advances from the State Government. The total receipts and payments, including amounts for defence works, during each of the years 1938–39 and 1946–47 to 1949–50 are shown below :—

MAIN ROADS COMMISSION, QUEENSLAND : RECEIPTS AND PAYMENTS.

(£.)

Item.	1938–39.	1946–47.	1947–48.	1948–49.	1949–50.
RECEIPTS.					
Motor Vehicle Registration, Transport Acts Collections, Fees, etc.	938,227	915,192	967,817	1,056,813	1,165,888
Loans from State Government ..	392,225	321,250	300,000	600,000	700,000
Grants, Advances, Refunds, etc. from State Government ..	579,775	230,231	590,708	687,630	594,471
Federal and Commonwealth Aid Roads and Works Acts ..	806,218	893,622	1,088,756	1,316,311	1,693,567
Commonwealth and Allied Works and Services	..	−29,051	..	..	..
Maintenance Repayments—Local Authorities	98,154	167,229	189,010	184,853	258,673
Hire, Rent, Sales of Plant, etc. ..	288,330	65,823	58,169	65,321	81,169
Other		82,452	114,317	112,208	125,469
Total	3,102,929	2,646,748	3,308,777	4,023,136	4,619,237
PAYMENTS.					
Permanent Road Works and Surveys	2,045,900	1,635,542	1,972,304	1,719,632	2,146,692
Maintenance of Roads	331,734	936,158	1,066,543	986,667	1,063,255
Port Development Works ..	..	15,096	4,885	..	..
Plant, Machinery, Buildings, etc. (including Plant Maintenance)	73,632	381,061	509,203	350,679	402,744
Loans—Interest	38,861	171,407	178,518	182,377	189,836
Redemption	78,153	148,413	165,553	169,447	183,406
Payments to State Consolidated Revenue	340,244	39,810	..	..	..
Payments to Local Authorities ..	27,418	41,541	..	1,807	1,769
Commonwealth and Allied Works and Services	..	17,039	−16,943	32,930	12,313
Other Works and Services ..	..	14,404	654	19,516	4,000
Administration, etc.	149,950	303,990	342,768	417,733	458,730
Other	1,750	14,528	19,560	16,178	25,173
Total	3,087,642	3,718,989	4,243,045	3,896,966	4,487,918

5. **South Australia.**—(i) *General.* The Highways Act 1926–1949 created a Commissioner of Highways and provided for a Highways Fund. The Commissioner is virtually empowered to determine upon which main roads he will spend the moneys available ; in doing which he has to take into account the availability of funds for main roads, the service the road is intended to render, and the present or future adequacy of railway facilities in the area through which it passes.

The Highways Fund is credited with the receipts from State motor taxation, fees, fines and licences, after deduction of the costs of collection, and all loans raised and appropriated for roads. All moneys received by the State from the Commonwealth under the Federal and Commonwealth Aid Roads and Works Acts are also expended by the Commissioner of Highways under the general provisions of the Highways Act.

(ii) *Length of Roads.* The total length of roads in use for general traffic at 30th June, 1948 (the latest date for which this information is available), was as follows :—Within District Council and Corporation Boundaries.—Blocks (wood or stone), 8 miles ; bituminous concrete (asphalt and premix), 393 miles ; cement concrete and cement penetration, 2 miles ; penetration or surface dressed (bitumen or tar), 4,283 miles ; metalled (gravelled or rubbled), 13,429 miles ; formed, but little or no metal, 8,742 miles ; surveyed, used by traffic, but little or no improvement, 25,220 miles ; total, 52,077 miles ; Outside Districts (main roads only), 565 miles ; Grand total, 52,642 miles. Lengths of main roads within district council and corporation boundaries aggregated 7,556 miles.

(iii) *State Highways and Local Government Department.* (*a*) *General.* The Department's programme for the acquisition of land for road improvement in the metropolitan and rural areas was continued during 1949–50, when approximately 14,000 linear feet of frontages in the metropolitan area were acquired and set back. This brought the total acquisition since the inception of the metropolitan widening scheme to 41,000 linear feet. In rural areas the policy of widening roads and improving the alignments was continued in order to provide for an expected future increase in the volume of traffic.

Construction and reconstruction works on main roads were carried out in the following areas :—Northern and Eyre Peninsula, Mid-Northern, Central, Metropolitan, Murray Lands, Upper South-Eastern and Lower South-Eastern. In other areas local authorities carried out the works under departmental supervision.

(*b*) *Receipts and Payments.* The following table shows particulars of receipts and payments, during the years 1938–39 and 1946–47 to 1949–50, of funds controlled by the Highways and Local Government Department. Wholly comparable figures for 1938–39 are not available.

HIGHWAYS AND LOCAL GOVERNMENT DEPARTMENT, SOUTH AUSTRALIA: RECEIPTS AND PAYMENTS.

(£.)

Item.	1938–39. (*a*)	1946–47.	1947–48.	1948–49.	1949–50.
RECEIPTS.					
Motor Vehicle Registration, Licences, Fees, Fines, etc. ..	690,849	681,573	718,951	1,010,539	1,144,454
Commonwealth and Federal Aid Roads and Works Acts ..	479,922	526,686	637,520	769,807	1,009,574
Loans from State Government ..	200,000	..	100,000	..	..
Recoups—Local and Semi-governmental Authorities ..	1,531	2,827	19,779	11,642	4,646
Other		9,373	32,434	68,261	115,386
Total	1,372,302	1,220,459	1,508,684	1,860,249	2,274,060

(*a*) Figures for 1938–39 are not completely comparable with those for following years.

HIGHWAYS AND LOCAL GOVERNMENT DEPARTMENT, SOUTH AUSTRALIA : RECEIPTS AND PAYMENTS—*continued.*

(£.)

Item.	1938–39. (a)	1946–47.	1947–48.	1948–49.	1949–50.
PAYMENTS.					
Construction and Reconstruction of Roads and Bridges ..	1,150,082	387,264	524,507	606,615	1,018,157
Maintenance		145,066	168,003	221,730	298,550
Purchase of Road Construction Plant, etc.	(b)	(b)	145,179	120,155	71,435
Recoups to Consolidated Revenue Fund—Interest, Sinking Fund and Exchange	(c) 178,273	171,142	167,376	158,803	141,783
Grants and Advances to Local and Semi-governmental Authorities	(b)	318,222	621,553	670,686	750,043
Administration	45,753	57,362	69,848	90,810	100,938
Stores, Machinery, Suspense Accounts, etc.		227,167	..	..	126,713
Other		1,791	3,951	2,261	12,960
Total	1,374,108	1,308,014	1,700,417	1,871,060	2,520,579

(a) Figures for 1938–39 are not completely comparable with those for following years. (b) Not separately available ; included elsewhere. (c) Interest and sinking fund payments.

The total expenditure, both revenue and loan, by State and local governments on roads, streets and bridges in South Australia during the years 1938–39 and 1946–47 to 1949–50 was, respectively, £1,966,000, £1,930,000, £2,341,000, £2,605,000 and £3,058,000.

6. **Western Australia.**—(i) *General.* Under the Main Roads Act 1930–1939 the Main Roads Board previously existing was abolished and a Commissioner of Main Roads was appointed. His duties relate to the determination of main roads after consideration of the funds available and the services to be rendered by the roads, the declaration and provision of developmental roads, the construction and maintenance of main roads, and the carrying out of surveys, investigations and experiments connected with roads and road materials. The Act authorizes two trust accounts (Main Roads Trust Account and Main Roads Contribution Trust Account) to record the moneys prescribed as available to the Commissioner for expenditure associated with roads, etc. In addition, the Commissioner operates on those Trust Accounts which are used for funds made available under the Federal and Commonwealth Aid Roads and Works Acts.

(ii) *Length of Roads and Streets.* The total known length of streets and roads in existence in the various municipalities at 31st October, 1950, and in road districts at 30th June, 1950, was as follows :—Concrete, 4 miles ; bituminous, 3,642 miles; granite, limestone, etc., waterbound, 280 miles ; gravel waterbound, 9,358 miles; other constructed surfaces, 2,711 miles ; formed only, 28,334 miles ; unprepared, 31,916 miles (incomplete) ; total, 76,245 miles.

The lengths of declared roads at 30th June, 1950, were :—Main roads, 3,154 miles ; developmental roads, 12,819 miles ; other classified roads, 24 miles ; total, 15,997 miles. No new main roads were declared during the years 1948–49 and 1949–50.

(iii) *Main Roads Department.* During the year 1949–50 (1948–49 in parentheses) the activities of the Department included :—clearing, 778 miles (962 miles) ; forming, 1,016 miles (1,269 miles) ; gravelling, 613 miles (693 miles) ; metalling, 1 mile (6 miles) ; reconditioning, 1,707 miles (2,514 miles) ; sanding, 56 miles (80 miles) ; side drains, 55 miles (92 miles). In addition, lengths of tar and bitumen work performed aggregated 296 miles (287 miles.) Bridges constructed numbered 20 (14). Work progressed on the causeway over the Swan River which involves the construction of two bridges. During 1949–50, construction was confined mainly to the Victoria Park end bridge where the pier system was almost completed. Work on the superstructure was commenced. During the year the construction of the Marble Bar–Port Hedland Road was commenced and a proposed route between Wyndham and Nicholson surveyed.

(iv) *Receipts and Payments—Combined Road Funds.* The following table shows the combined transactions of the Main Roads Trust Account, the Main Roads Contributions Trust Account, the Metropolitan Traffic Trust Account, the Transport Co-ordination Trust Account (up to the end of 1946–47) and the Federal and Commonwealth Aid Roads and Works Trust Accounts during the years ended 30th June, 1939 and 1947 to 1950.

ROAD FUNDS, WESTERN AUSTRALIA : RECEIPTS AND PAYMENTS.

(£.)

Item.	1938–39. (a)	1946–47.	1947–48. (b)	1948–49. (b)	1949–50. (b)
RECEIPTS.					
Motor Vehicle Registration, Licences, Fees, Fines, etc. ..	218,962	221,010	354,946	303,838	346,246
Federal and Commonwealth Aid Roads and Works Acts ..	823,162	893,401	1,098,758	1,404,448	1,740,482
Recoups from Local Authorities, etc.	1,958	16,667	15,529	18,810	110,370
Other		7,575	51,315	6	29
Total	1,044,082	1,138,653	1,520,548	1,727,102	2,197,127
PAYMENTS.					
Construction and Reconstruction of Roads and Bridges ..	922,756	541,377	920,255	1,256,351	1,507,873
Maintenance		97,436	109,936	137,061	133,474
Other Road Works, etc. ..	..	10,252	39,821	..	..
Other Works	..	..	54,840	..	..
Grants to Local Authorities, etc.. .	143,544	141,580	142,000	220,246	230,492
Transfer to State Consolidated Revenue	..	37,739	67,003	59,234	67,711
Interest, Sinking Fund and Exchange—State Consolidated Revenue	7,616	7,399	7,391	5,555	8,842
Administration, Plant, etc. ..	52,176	71,077	36,469	31,178	38,380
Other	19,181	4,601	..	..	..
Total	1,145,273	911,461	1,377,715	1,709,625	1,986,772

(a) Figures not completely comparable with those for following years. (b) Excludes Transport Co-ordination Trust Account.

7. **Tasmania.**—(i) *General.* Under the Transport Act 1938, which came into operation on 1st July, 1939, the Transport Commission was constituted to co-ordinate, regulate, control, and improve the means of, and facilities for, transport by road, rail or air within the State. Revenues at its disposal for road and motor traffic purposes are the Federal and Commonwealth Aid Roads and Works Grants, motor vehicle registration fees and tax, and licensing fees for drivers and public motor vehicles. Under the Roads and Jetties Act 1944, which provides for the classification of the whole of the roads of the State so that they will be adequately and efficiently maintained, the cost of maintenance of roads classified as State highways, tourist roads and developmental roads is borne by the Transport Commission. It is also responsible for a proportion of the cost of maintenance of main and secondary roads. Municipal councils bear the cost of maintaining country roads and a proportion of the cost of main and secondary roads, except in special cases. The cost of construction of roads and bridges in Tasmania is borne almost entirely by the State Government. The expenditure of the Public Works Department (the construction and maintenance authority for the Transport Commission) during 1949–50 on roads, tracks and bridges amounted to £907,021, of which £763,507 was charged to road funds, £67,000 to revenue, £76,328 to loan and £186 to Crown lands funds.

(ii) *Length of Roads.* (*a*) *Classified Roads.* The mileages of classified roads in Tasmania at 30th June, 1950 were as follows :—State highways, 1,165 miles ; main roads, 660 miles ; secondary roads, 189 miles ; tourist roads, 46 miles ; developmental roads, 49 miles ; subsidized roads, 78 miles ; total 2,187 miles. Country roads totalled more than 10,000 miles. The mileages of sealed roads, and their proportions to the respective totals, were :—State highways, 545 miles (47 per cent.); main roads, 148 miles (22 per cent.) ; secondary roads, 9 miles (5 per cent.) ; total, 702 miles (32 per cent. of all classified roads, and 6 per cent. of all roads, in Tasmania).

(*b*) *Composition of Roads.* The length of all roads in Tasmania, including those with surfaces of lower grade, at 30th June, 1951 was as follows :—Sheet asphalt on concrete base, 1 mile ; other bituminous, 914 miles ; concrete, 8 miles ; granite, limestone, etc., waterbound, 8,559 miles ; surfaces of lower grade, 2,787 miles ; total, 12,269 miles.

(iii) *Transport Commission.* The principal construction work carried out during 1949–50 was the completion of the North-South Bruny Road which effectively linked for the first time the northern and southern halves of Bruny Island. Expenditure from loans from the State Treasury amounting to £23,163 was incurred for this project. An amount of £112,966 was spent on the resealing of classified roads, as compared with £100,476 in 1948–49 and £181,806 in 1947–48.

(iv) *Receipts and Payments—Combined Road Funds.* The table hereunder shows particulars of the receipts and payments of combined Road Funds and Federal and Commonwealth Aid Roads and Works Funds under the control of the Transport Commission for the years 1939–40 and 1946–47 to 1949–50 :—

ROAD FUNDS, TASMANIA : RECEIPTS AND PAYMENTS.

(£.)

Item.	1939–40. (a)	1946–47.	1947–48.	1948–49.	1949–50.
RECEIPTS.					
Motor Vehicle Taxation and Registration, Licences, Fees, Fines, etc.	193,165	241,438	264,780	297,503	327,475
Federal and Commonwealth Aid Roads and Works Acts ..	220,241	232,944	286,158	348,733	450,930
Recoups from Local Authorities, etc.	..	7,365	8,660	9,636	8,966
State Loan Fund	..	..	28,795	66,399	60,689
Other	719	30,448	37,470	110,716	(b) 417,380
Total	414,125	512,195	625,863	832,987	1,265,440
PAYMENTS.					
Construction and Reconstruction of Roads and Bridges ..	127,929	284,283	379,050	268,998	219,118
Maintenance	113,199	257,145	254,056	270,102	549,241
Jetties, etc.	22,467	4,658	4,682	10,415	..
Other Road Works	2,995	13,589	23,724	53,265	10,920
Other works connected with Transport	5,748		13,163	18,060	20,988
Grants to Local Authorities, etc.	..	6,451	258	325	2,037
Administration	15,053	47,836	52,199	55,659	67,726
Other	31,894	58,720	54,572	195,394	(c) 383,961
Total	319,285	672,682	781,704	872,218	1,253,991

(a) First year of operation of Transport Commission. Figures not completely comparable with those for following years. (b) Includes £237,899 hire of plant. (c) Includes £192,619 hire and maintenance of road construction plant, etc.

(v) *Hobart Bridge.* Under the Hobart Bridge (Acquisition and Administration) Act 1944 the Transport Commission is responsible for the administration, control and management of the Hobart Bridge and transport services. Tolls on the Hobart Bridge were abolished as from 31st December, 1948.

8. **Summary of Roads used for General Traffic.**—(i) *Proclaimed or Declared Roads.* The table hereunder is a summary of the roads proclaimed or declared under the Acts of the several States relative to the operations of the central road authorities, and shows the lengths of various classes proclaimed or declared as at 30th June, 1950. These proclaimed or declared roads are those for which the central road authority assumes responsibility under the Act for the whole, or a proportion, of the cost of construction and/or maintenance, the extent varying from State to State and with the class and locality of the roads. Before proclamation of a main road, the following points are, in general, amongst the more important of those to be considered :—(a) the funds available or likely

to be available for main roads ; (*b*) whether the road is, or will be, the main trunk route connecting any large producing district with its market or point of shipment ; (*c*) whether the road is, or will be, the main trunk route of intercommunication between two or more such districts or between two or more large centres of population ; (*d*) whether the road is, or will be, the main trunk route between the capital of the State and any large producing district or any large centre of population ; (*e*) whether the road is, or will be, the main trunk route between the capitals of two or more States ; (*f*) whether the district concerned is, or will be, sufficiently served by railways. Provision is also made in some States for the declaration of roads other than main. The absence of a particular class from the following data for any State does not necessarily imply that there are no roads within that State that might be so classified ; the classes are restricted only to roads proclaimed or declared under the Acts. A further point to make is that, through various causes, e.g. insufficiency of funds, manpower or materials, etc.—construction or maintenance may not keep pace with gazettals of mileages, and that therefore the condition of a road may not match its status.

PROCLAIMED OR DECLARED ROADS : LENGTHS, 30th JUNE, 1950.

(Miles.)

Class of Road.	N.S.W.	Vic.	Q'land.	S. Aust. (*a*)	W. Aust.	Tas.	Total.
State highways	6,513	3,849	7,610	8,122	3,154	1,165	68,318
Trunk roads	4,031	9,710	10,876			660	
Ordinary main roads	12,628						
Total Main Roads ..	23,172	13,559	18,486	8,122	3,154	1,825	68,318
Secondary roads	68	..	627	..	..	189	884
Developmental roads	2,783	..	245	..	12,819	49	15,896
Tourist roads	..	402	285	..	..	46	733
Other roads	..	(*b*) 342	(*c*) 964	..	24	(*d*) 78	1,408
Total Other Roads ..	2,851	744	2,121	..	12,843	362	18,921
Grand Total	26,023	14,303	20,607	8,122	15,997	2,187	87,239

(*a*) At 30th June, 1948. (*b*) Forest roads. (*c*) Includes mining access roads, 686 miles ; farmers' roads, 276 miles ; tourist tracks, 2 miles. (*d*) Subsidized roads.

(ii) *Composition of Roads.* The following table represents an attempt to classify all the roads used for general traffic in Australia, at the latest dates available, according to States and Territories and to certain broad composition groups. The results are not entirely satisfactory, (i) because it is doubtful whether the whole of Australia is covered, (ii) because the dates of reference differ, and (iii) because the figures constituting each group are not wholly comparable for the States and Territories. It is hoped, however, despite these defects, that the table will provide an approximate and general idea of the main types of roads in Australia.

The data in the table for the States are obtained from the State Government Statisticians, and are derived mainly from local government sources. Unincorporated areas in some States are probably excluded and the figures on the returns supplied by the local government authorities are in some cases of doubtful accuracy. Details of the composition of roads, as far as they are available, vary to such an extent that it was considered preferable to show here only major divisions.

Groups 1–4 as shown in the table include, respectively, the following types of composition :—

1. *Wood or Stone.* Wood blocks ; stone paved.
2. *Concrete.* Cement concrete ; asphaltic concrete ; bituminous concrete ; sheet asphalt on concrete base.
3. *Bituminous.* Tar or bituminous macadam ; tar and bituminous surface seal ; surfaced water-bound macadam or gravel ; bituminous or cement penetration.
4. *Macadam and Other.* Water-bound macadam ; granite, limestone, and blast-furnace slag, water-bound ; gravel water-bound ; gravel or crushed rock ; metalled (gravel or rubble) ; gravel, sand and hard loam pavements.

Groups 5 and 6 include roads so-called mainly because they are used for general traffic, irrespective of their surfaces, prepared or otherwise.

It will be noticed that some of the terms used above are practically synonymous. Such terms are, of course, not used by any one State, but are the classifications adopted by different States.

For details of any particular State, *see* the respective paragraphs in the preceding pages.

ALL ROADS USED FOR GENERAL TRAFFIC : LENGTHS.
(Miles.)

Composition of Road.	N.S.W. 1948.	Vic. 30th Sept., 1948.	Q'land. 30th June, 1950.	S. Aust. 30th June, 1948.	W. Aust. 1950. (a)	Tas. 30th June, 1951.	N. Terr. 1949.	A.C.T. 30th June, 1951.	Total.
1. Wood or stone	..	62	..	8	..	..	..	..	70
2. Concrete ..	581	352	90	395	4	9	..	3	1,434
3. Bituminous	8,027	10,241	4,113	4,283	3,642	914	1,287	143	32,650
4. Macadam and other ..	34,060	28,418	9,288	13,429	12,349	8,559	213	121	106,437
5. Formed only	27,454	23,901	44,977	9,307	28,334	(b) 994	5,982	203	141,152
6. Cleared, or natural surface, only ..	56,150	38,437	76,107	25,220	31,916	(b) 1,793	2,316	..	231,939
Total ..	126,272	101,411	134,575	52,642	76,245	12,269	9,798	470	513,682

(a) Municipalities, 31st October and Road Districts, 30th June. (b) Estimated dissection.

It will be seen from the foregoing table that a little more than one-quarter of the road lengths of Australia has actually been constructed, the remainder, for the greater part, being in little more than the natural state. The percentages for each group are as follows :—Group 1, 0.01 ; Group 2, 0.28 ; Group 3, 6.36 ; Group 4, 20.72 ; Group 5, 27.48 ; Group 6, 45.15. The percentage of constructed lengths to total length in each State is as follows :—New South Wales, 33 ; Victoria, 39 ; Queensland, 10 ; South Australia, 34 ; Western Australia, 21 ; Tasmania, 77 ; Northern Territory, 15 ; Australian Capital Territory, 57. Comparisons between the States should be made with caution, however, because, in addition to the defects enumerated at the beginning of this section, factors such as the area, physiography, density and distribution of population, nature of economic activity, other facilities for transport, etc., in each State must be taken into account.

9. **Summary of Expenditure on Roads and Bridges.**—(i) *General.* Figures showing the total expenditure on roads and bridges in all States are not available. Such totals are very difficult to obtain, not only because of the number of States, but also because of the number of authorities concerned. In most States there are three classes of authorities—the State Government, the central road authority, and the numerous local government bodies. Both State Government and local government bodies operate

through revenue and loan funds, and payments may be made by the State Government direct from either fund, or through the funds of other authorities. The expenditure of the central road authority may also be direct or indirect. Consequently the problem of duplication caused by inter-fund payments arises. On the other hand, some expenditure may be omitted because separate particulars are not available. Ignorance of the precise nature of items may cause either incorrect inclusion or omission. To produce accurate figures would entail more research than at present can be undertaken.

The two paragraphs following therefore represent only: (i) aggregate expenditure from the various State road funds referred to in the foregoing pages, and (ii) loan fund expenditure by State Governments. No direct expenditure by local government bodies is included. Sub-section 2. Finances, of § 2. Local Government Authorities, contains some particulars of local government revenue and expenditure in connexion with roads, streets and bridges (*see* pages 651 and 654).

(ii) *Aggregate Expenditure from State Road Funds.* The following table shows the expenditure on the construction and maintenance of roads, including payments to local government bodies, by each State during the years 1938–39 and 1945–46 to 1949–50, as summarized from the foregoing sections. Expenditure on administration, debt charges, Commonwealth defence works, payments to State consolidated revenues, and on plant and materials is not included. In some instances expenditure on works other than roads and bridges is included. Figures are not completely comparable as between States, and, in some States, as from year to year.

ROADS AND BRIDGES: AGGREGATE EXPENDITURE FROM ROAD FUNDS.

(£'000.)

Year ended 30th June—	N.S.W. (a)	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Total.
1939 ..	3,257	2,099	2,405	692	1,067	(b) 272	9,792
1946 ..	2,373	1,071	1,341	605	433	331	6,154
1947 ..	3,305	1,976	2,613	851	791	566	10,102
1948 ..	3,886	3,113	3,039	1,314	1,212	675	13,239
1949 ..	4,224	2,601	2,706	1,499	1,614	621	13,265
1950 ..	5,160	3,143	3,210	2,067	1,872	802	16,254

(a) Excludes Sydney Harbour Bridge. (b) Year 1939–40.

The foregoing particulars do not represent the total expenditure on roads and bridges in each State. To obtain such information additions must be made on account of (i) State Government expenditure from revenue and loan, and (ii) local government expenditure from revenue and loan, while, on the other hand, allowances must be made for inter-fund payments. (*See* par. (i) above.)

(iii) *State Net Loan Expenditure.* In recent years, expenditure from State loan funds on roads and bridges has not been large, and it would appear, also, that a considerable proportion passes through the funds of the central road authorities and is therefore included in the figures on their financial operations in the foregoing sections, while, on the other hand, it must be supplemented by expenditure from State revenue. Gross loan expenditure by all State Governments during each of the years 1948–49 and 1949–50 amounted to more than £1,000,000, and net expenditure to considerably less. Aggregate net loan expenditure on roads and bridges in each State to 30th June, 1950 amounted to the following approximate sums:—New South Wales, £21,000,000; Victoria, £13,000,000; Queensland, £8,000,000; South Australia, £4,000,000; Western Australia, £3,000,000; Tasmania, £6,000,000; total, £55,000,000.

§ 5. Water Supply, Sewerage and Drainage.

NOTE.—*See also* Chapter XXVI.—Water Conservation and Irrigation.

1. **New South Wales.**—(i) *General.* The largest two domestic water supply and sewerage systems are controlled by statutory boards each consisting of a president and a vice-president appointed by the State Government and five members elected by local councils. These are (*a*) the Metropolitan Water, Sewerage and Drainage Board, which administers the systems in the County of Cumberland, i.e., in Sydney and in the surrounding districts, and, in addition, has jurisdiction over territory extending along the South Coast beyond Wollongong to Lake Illawarra, and (*b*) the Hunter District Water Board, serving the Newcastle area. At Broken Hill a similar board includes a representative of the mining companies. Other systems, apart from irrigation projects and water storage systems administered by the State Government, are controlled by county, municipal and shire councils.

(ii) *Water Supply—to 30th June,* 1950. (*a*) *Metropolitan.* The storage reservoirs of the metropolitan system, with a combined available capacity of 125,144 million gallons, drain catchment areas of 376 square miles (Upper Nepean, 347 square miles and Woronora, 29 square miles). Water is drawn also from the Warragamba River, with a catchment of 3,383 square miles. This system is being developed, and building has commenced on a dam to have an overall height of 415 feet (greatest depth of water 343 feet), giving a safe draught of 263 million gallons per day. The existing temporary storage is supplied by a weir 50 feet high with a maximum storage of 579 million gallons. At 30th June, 1950 there were 95 service reservoirs in use with a combined capacity of 541.3 million gallons. Rating for water for 1949–50 was 9½d. in the £1 of assessed annual value and the charge for water measured by meters 1s. 6d. per 1,000 gallons.

(*b*) *Newcastle.* The water supply is drawn from two sources (1) the Chichester Reservoir, with a storage capacity of about 5,000 million gallons and draining a catchment of 76 square miles, and (2) the Tomago Sandbeds, which extend northerly along the coast towards Port Stephens. Service reservoirs and tanks distributed throughout the Water Supply District have a total storage capacity of 106 million gallons. Water rating for 1949–50 was 1s. 3d. in the £1 on assessed annual value. The price of water to domestic and industrial consumers is 1s. 6d. per 1,000 gallons.

(*c*) *Water Supplied, etc.* The following tables show, for the Sydney and Newcastle systems, the number of properties, the estimated population supplied, and other details for the years 1938–39 and 1945–46 to 1949–50 :—

WATER SUPPLY, SYDNEY(*a*) : SERVICES.

Year.	Improved Properties for which Water Main available.	Estimated Population Supplied.	Average Daily Consumption.	Total Consumption for the Year.	Average Daily Consumption.		Length of Mains.	Number of Meters.
					Per Property.	Per Head of Estimated Population.		
	No.		Mill. gals.	Mill. gals.	Gallons.	Gallons.	Miles.	
1938–39 ..	350,161	1,466,000	106.3	38,790	304	72.5	4,539	126,754
1945–46 ..	378,277	1,628,000	121.7	44,437	322	74.8	4,657	153,211
1946–47 ..	387,980	1,718,000	131.2	47,874	338	77.1	4,743	160,169
1947–48 ..	400,615	1,774,000	122.1	44,682	305	69.6	4,817	170,124
1948–49 ..	414,893	1,800,000	131.3	47,925	316	73.5	4,894	182,566
1949–50 ..	428,392	1,870,000	130.8	47,735	305	72.1	4,993	196,121

(*a*) Includes part of South Coast.

WATER SUPPLY, NEWCASTLE : SERVICES.

Year.	Properties Supplied.	Estimated Population Supplied.	Average Daily Supply.	Total Supply for Year.	Average Daily Supply.		Length of Mains.
					Per Property.	Per Head of Estimated Population.	
	No.		Mill. gals.	Mill. gals.	Gallons.	Gallons.	Miles.
1938–39	48,370	193,480	11.9	4,331	245	61.3	936
1945–46	55,171	217,956	17.6	6,413	319	80.1	1,098
1946–47	56,804	223,656	18.9	6,900	333	83.9	1,134
1947–48	58,660	231,600	18.5	6,774	316	79.9	1,169
1948–49	61,215	241,036	19.0	6,951	310	79.0	1,202
1949–50	63,289	247,992	19.7	7,176	311	79.3	1,215

(iii) *Sewerage and Drainage—to 30th June,* 1950. (*a*) *Metropolitan.* The Sydney sewerage system consists mainly of outfall systems discharging into the Pacific Ocean. At 30th June, 1950 there were six outfalls and six treatment works, serving a population of 1,306,000 over a length of sewers of 2,899 miles.

Stormwater drainage channels under the Metropolitan Water, Sewerage and Drainage Board's control at the same date were 154 miles long. Sewerage rating for 1949–50 was 9¾d. in the £1 of assessed annual value and drainage from ¼d. to 3d.

(*b*) *Newcastle.* The main sewerage system of the Newcastle area discharges into the Pacific Ocean at Merewether Gulf. In some of the outlying districts treatment works have been installed.

Sewerage rates for 1949–50 were 1s. 3d. in the £1 of assessed annual value and drainage rates (on certain areas served) 2d. in the £1.

(*c*) *Particulars of Services.* The following table supplies, for the Sydney system, details of sewerage services and stormwater drains as at 30th June, 1939 and 1946 to 1950.

SEWERAGE AND DRAINAGE, SYDNEY(*a*) : SERVICES.

At 30th June—	Improved Properties for which Sewer Available.	Estimated Population Served.	Total Sewage Pumped for the Year.	Length of Sewers.	Length of Stormwater Channels.
	No.		Mill. gals.	Miles.	Miles.
1939	254,632	1,066,000	8,299	2,561	87
1946	283,364	1,161,000	9,439	2,780	99
1947	287,098	1,198,000	9,604	2,805	117
1948	291,069	1,263,000	9,894	2,829	129
1949	294,822	1,282,000	10,621	2,855	153
1950	298,996	1,306,000	12,200	2,899	154

(*a*) Includes part of South Coast.

At 30th June, 1950 (at 30th June, 1949 in parentheses) 44,168 (42,838) premises had been connected to the Hunter District Water Board's sewerage system (Newcastle area). The total length of sewers under the Board's control was 608 (601) miles, and the length of drains over 24 inches diameter was 38 (38) miles.

(iv) *Finances, Sydney and Newcastle Systems.* (*a*) *Details,* 1948–49 *and* 1949–50. The following statement shows the debt, revenue and expenditure on account of the services of water supply, sewerage and drainage by the Metropolitan Water, Sewerage and Drainage Board and the Hunter District Water Board during 1948–49 and 1949–50.

WATER SUPPLY, SEWERAGE AND DRAINAGE, SYDNEY(*a*) AND NEWCASTLE : FINANCES, 1948–49 AND 1949–50.

(£.)

Service.	Capital Debt.	Revenue.	Expenditure.				Surplus(+) or Deficit(−).
			Working Expenses. (*b*)	Interest and Exchange.	Sinking Fund and Loan Repayment.	Total.	
1948–49.							
Sydney (*a*)—							
Water	35,302,110	2,878,023	1,351,349	1,263,048	261,209	2,875,606	+ 2,417
Sewerage ..	18,561,111	1,691,343	809,284	723,568	136,609	1,669,461	+ 21,882
Drainage ..	(*c*) 933,680	83,946	38,526	38,779	5,647	82,952	+ 994
Total ..	54,796,901	4,653,312	2,199,159	2,025,395	403,465	4,628,019	+ 25,293
Newcastle—							
Water	4,946,032	421,849	210,615	178,785	31,990	421,390	+ 459
Sewerage ..	2,449,838	212,145	106,245	94,262	14,845	215,352	− 3,207
Drainage ..	134,007	14,875	8,797	4,832	976	14,605	+ 270
Total ..	7,529,877	648,869	325,657	277,879	47,811	651,347	− 2,478
1949–50.							
Sydney (*a*)—							
Water	38,687,480	3,141,905	1,525,602	1,325,696	286,152	3,137,450	+ 4,455
Sewerage ..	20,212,977	1,793,660	903,281	729,127	143,763	1,776,171	+ 17,489
Drainage ..	*c* 1,017,960	116,311	59,740	38,067	5,745	103,552	+ 12,759
Total ..	59,918,417	5,051,876	2,488,623	2,092,890	435,660	5,017,173	+ 34,703
Newcastle—							
Water	5,155,670	447,212	228,420	184,539	34,058	447,017	+ 195
Sewerage ..	2,507,941	232,349	121,377	95,599	15,624	232,600	− 251
Drainage ..	143,955	15,986	9,712	5,007	1,084	15,803	+ 183
Total ..	7,807,566	695,547	359,509	285,145	50,766	695,420	+ 127

(*a*) Includes part of South Coast. (*b*) Includes provision for renewals, long service leave, loss on exchange, etc. (*c*) Excludes non-interest bearing capital in respect of stormwater drains transferred from Public Works Department—£1,906,217 at 30th June, 1949, and £1,875,341 at 30th June, 1950.

(*b*) *Summary,* 1938–39 *and* 1945–46 *to* 1949–50. The following table shows the total debt, revenue and expenditure on account of the combined services of water supply, sewerage and drainage by the Metropolitan Water, Sewerage and Drainage Board and the Hunter District Water Board for the years 1938–39 and 1945–46 to 1949–50

WATER SUPPLY, SEWERAGE AND DRAINAGE, SYDNEY AND NEWCASTLE: FINANCES.

(£.)

Year.	Capital Debt.	Revenue.	Expenditure.				Surplus(+) or Deficit(−).
			Working Expenses.	Interest and Exchange.	Sinking Fund and Loan Repayment.	Total.	
			SYDNEY.				
1938–39	43,769,741	2,926,694	957,422	1,727,708	241,564	2,926,694	..
1945–46	47,124,380	3,852,167	1,611,108	1,887,256	343,034	3,841,398	+ 10,769
1946–47	48,786,655	4,031,572	1,763,014	1,917,607	350,352	4,030,973	+ 599
1947–48	51,185,095	4,198,786	1,847,321	1,962,324	375,936	4,185,581	+ 13,205
1948–49	54,796,901	4,653,312	2,199,159	2,025,395	403,465	4,628,019	+ 25,293
1949–50	59,918,417	5,051,876	2,488,623	2,092,890	435,660	5,017,173	+ 34,703
			NEWCASTLE.				
1938–39	4,574,880	385,732	167,620	188,185	20,886	376,691	+ 9,041
1945–46	6,794,717	522,573	212,055	263,292	40,625	515,972	+ 6,601
1946–47	7,038,765	548,190	236,132	266,124	41,840	544,096	+ 4,094
1947–48	7,294,868	576,972	257,659	270,529	44,643	572,831	+ 4,141
1948–49	7,529,877	648,869	325,657	277,879	47,811	651,347	− 2,478
1949–50	7,807,566	695,547	359,509	285,145	50,766	695,420	+ 127

NOTE.—*See* footnotes to previous table.

(v) *Country Water Supply and Sewerage Systems.* At 31st December, 1947, country water supply services were conducted or under construction by 72 municipalities, 45 shires and 4 county councils, and country sewerage services by 52 municipalities and 12 shires. The capital indebtedness of these schemes was £7,475,597 at 31st December, 1947, namely, £4,772,662 for water and £2,702,935 for sewerage. Of the foregoing amounts, Government advances amounted to £570,523. Debt of the municipalities amounted to £5,451,053, shires to £1,017,339 and county councils to £1,007,205. Aggregate income and expenditure, respectively, amounted to £1,018,671 and £899,588 in 1947, and to £1,000,152 and £852,687 during 1946.

(vi) *Other Water Supply and Sewerage Systems.* The water supply and sewerage services for Broken Hill are operated by a statutory board, the Broken Hill Water Board. Its capital indebtedness at 31st December, 1950 was £1,094,776. Income and expenditure, respectively, were £117,977 and £134,482 for 1950 and £98,484 and £119,822 for 1949.

The following country water supply systems—South-West Tablelands, Junee and Fish River—are administered by the Department of Public Works. These supply water in bulk to municipalities and shires, the Railways Department, and other large consumers; only a small quantity is sold directly to private consumers. The capital indebtedness of these systems was £2,418,508 at 31st December, 1950.

There are also the Mulwala Water Supply and Sewerage Service constructed as an urgent war-time work for the Commonwealth, and the Bethungra Water Supply System administered by the Department of Public Works in conjunction with the Junee supply.

2. **Victoria.**—(i) *Melbourne and Metropolitan Board of Works—to 30th June,* 1950. (*a*) *General.* The metropolis, for water supply, sewerage and drainage and river improvement purposes, comprises all that land within a radius of 13 miles of the Post Office at

the corner of Bourke and Elizabeth-streets, Melbourne, and the remaining portions of the Cities of Moorabbin, Mordialloc, and Nunawading and the shire of Mulgrave and certain portions of the remainder of the Shires of Eltham, Doncaster and Templestowe, and Dandenong, but excludes a portion of the Shire of Werribee within such radius. This territory has an area of 450 square miles and comprises 27 cities and one shire and parts of one other city and 9 other shires. The Board comprises 48 members, including the chairman, who is elected every four years by the other members. These members, or commissioners, are from time to time elected by the councils of the municipal districts wholly or partly within the metropolis. The principal functions of the Board are to control and manage the metropolitan water supply system ; to provide the metropolis with an efficient system of main and general sewerage ; to deal with main drains and main drainage works ; and to control and manage the rivers, creeks and watercourses within the metropolis.

(*b*) *Water Supply.* There are five storage reservoirs serving the metropolitan area—Yan Yean, 7,234 million gallons (available for consumption, 6,605 million gallons) ; Toorourrong, 60 million gallons ; Maroondah, 6,274 million gallons (4.855 million gallons) ; O'Shannassy, 930 million gallons ; Silvan, 8,853 million gallons (8,823 million gallons) ; total 23.351 million gallons (21,273 million gallons). Service reservoirs number 25, with a total capacity of 262 million gallons. Two new projects are under construction. One is a 23-mile conduit to carry water from the Upper Yarra catchment to the Silvan Reservoir and its estimated cost is £2,697,000. Up to 30th June, 1950, about one-third of the length of the pipe-line had been laid. The other project, approved by the Board in 1946, consists of a dam which will impound 30,000 million gallons of water, on the River Yarra, immediately upstream from the confluence of the Yarra and Doctors Creek, and work on the project is proceeding. In 1950 it was estimated to cost £7,800,000.

The water rate levied by the Board in 1949–50 was 7d. in the £1 on the net annual value of the property served, and there was a charge of 1s. per 1,000 gallons of water supplied by meter. From 1st July, 1950, the charge for water supplied by measure in excess of the quantity which, at 1s. per 1,000 gallons, would produce an amount equal to the water rate payable on the property, was increased from 1s. to 1s. 3d. The following table shows particulars of Melbourne metropolitan water supply services for the years 1938–39 and 1945–46 to 1949–50.

WATER SUPPLY, MELBOURNE : SERVICES.

Year.	Number of Houses Supplied.	Estimated Population Supplied.	Average Daily Consumption.	Total Consumption for the Year.	Average Daily Consumption. Per House.	Average Daily Consumption. Per Head of Estimated Population.	Length of Aqueducts, etc., Mains and Reticulation.	Number of Meters.
			Mill. gals.	Mill. gals.	Gallons.	Gallons.	Miles.	
1938–39 ..	285,408	1,133,000	66.9	24,408	234	59.0	3,234	189,617
1945–46 ..	308,731	1,226,000	78.4	28,611	254	64.0	3,539	216,373
1946–47 ..	312,735	1,242,000	87.9	32,092	281	70.8	3,594	218,744
1947–48 ..	320,798	1,275,000	91.9	33,651	287	72.1	3,691	220,992
1948–49 ..	328,843	1,307,000	93.9	34,280	286	71.9	3,771	224,352
1949–50 ..	342,742	1,363,000	91.7	33,458	267	67.3	3,875	229,238

(*c*) *Sewerage and Drainage.* Particulars of sewerage and drainage services for 1938–39 and 1945–46 to 1949–50 are shown below. The rate levied in 1949–50 in respect of sewerage was 1s. in the £1 on the net annual value of the property served. The drainage rate was 1d. in the £1.

SEWERAGE AND DRAINAGE, MELBOURNE : SERVICES.

Year.	Number of Houses for which Sewers are Provided.	Estimated Population for which Sewers are Provided.	Average Daily Pumping.	Total Sewage Pumped for the Year.	Average Daily Pumping.		Length of Sewers, etc.	Length of Main Drains.
					Per House.	Per Head of Estimated Population.		
			Mill. gals.	Mill. gals.	Gallons.	Gallons.	Miles.	Miles.
1938–39 ..	269,411	1,070,000	48.2	17,601	179.0	45.1	2,586	97
1945–46 ..	291,536	1,157,000	56.4	20,582	193.5	48.7	2,749	115
1946–47 ..	294,343	1,169,000	59.1	21,570	200.8	50.6	2,773	117
1947–48 ..	302,433	1,202,000	61.6	22,551	203.8	51.3	2,814	122
1948–49 ..	308,772	1,228,000	62.5	22,801	202.4	50.9	2,844	125
1949–50 ..	320,006	1,272,000	66.4	24,251	207.5	52.2	2,880	126

The metropolitan sewerage system consists of the Main system (serving an area of 67,433 acres) and three subsidiary systems—the Sunshine system (serving an area of 941 acres in the Shire of Braybrook, including the township of Sunshine), the Kew system (serving an area of 103 acres in Kew) and the South-eastern system (serving an area of 2,292 acres in Cheltenham, Parkdale, Mentone and Mordialloc). The Metropolitan Sewage Farm, 26,056 acres in extent and situated about 24 miles south-west of Melbourne beyond the township of Werribee, serves to purify and dispose of approximately 95 per cent. of the sewage flow of the metropolis before its discharge into Port Phillip Bay. The total capital cost (less depreciation) to 30th June, 1950 was £1,885,231. Revenue during 1949–50 (1948–49 in parentheses) amounted to £79,166 (£77,690), cost of sewage disposal £99,413 (£95,749), trading expenses £66,690 (£58,469), interest £67,901 (£63,661), and net cost of sewage purification £154,838 (£140,189). These financial particulars are included in the sewerage items of the summary below.

At 30th June, 1950, the Melbourne and Metropolitan Board of Works had 126 miles of main drains under its control—105 miles of underground, 12 miles of constructed open drains, and 9 miles of natural watercourses and unlined open drains.

(*d*) *Finances—Details,* 1948–49 *and* 1949–50. The following table provides a summary, for the years 1948–49 and 1949–50, of the financial operations of the three services conducted by the Melbourne and Metropolitan Board of Works :—

MELBOURNE AND METROPOLITAN BOARD OF WORKS : FINANCES, 1948–49 AND 1949–50.

(£.)

Service, etc.	Capital Cost. (*a*)	Revenue.	Expenditure.				Surplus (+) or Deficit(−).
			Working Expenses, etc.	Interest and Exchange.	Sinking Fund.	Total.	
			1948–49.				
Water	15,492,433	1,294,558	686,301	568,151	..	1,254,452	+ 40,106
Sewerage	16,710,110	1,307,373	509,888	627,423	..	1,137,311	+ 170,062
Drainage ..	2,110,044	111,995	25,801	64,169	..	89,970	+ 22,025
General(*b*) ..	..	..	210,737	9,000	69,840	289,577	− 289,577
Total ..	34,312,587	2,713,926	1,432,727	1,268,743	69,840	2,771,310	− 57,384
			1949–50.				
Water	16,876,293	1,323,236	791,743	603,068	..	1,394,811	− 71,575
Sewerage	17,364,821	1,484,545	574,962	644,768	..	1,219,730	+ 264,815
Drainage ..	2,212,778	116,548	26,896	67,506	..	94,402	+ 22,146
General(*b*) ..	..	..	223,302	9,000	73,785	306,087	− 306,087
Total ..	36,453,892	2,924,329	1,616,903	1,324,342	73,785	3,015,030	− 90,701

(*a*) Includes depreciation, £395,525. Total loan indebtedness—1948–49, £27,936,165 ; 1949–50 £29,513,785. (*b*) Statutory and general expenditure not distributed over Services.

(*e*) *Finances,* 1938–39 *and* 1945–46 *to* 1949–50. The following table shows the financial operations of the Melbourne and Metropolitan Board of Works (all services combined) for the years 1938–39 and 1945–46 to 1949–50 :—

MELBOURNE AND METROPOLITAN BOARD OF WORKS : FINANCES.

(£.)

Year.	Capital Cost.	Revenue.	Expenditure.				Surplus(+) or Deficit(−).
			Working Expenses.	Interest and Exchange.	Sinking Fund.	Total.	
1938–39	27,598,603	2,214,295	762,558	1,316,603	64,269	2,143,430	+ 70,865
1945–46	30,614,713	2,309,505	1,010,713	1,263,123	64,928	2,338,764	− 29,259
1946–47	31,443,217	2,389,947	1,230,293	1,236,099	65,090	2,531,482	− 141,535
1947–48	32,749,852	2,521,366	1,253,728	1,239,372	67,340	2,560,440	− 39,074
1948–49	34,312,587	2,713,926	1,432,727	1,268,743	69,840	2,771,310	− 57,384
1949–50	36,453,892	2,924,329	1,616,903	1,324,342	73,785	3,015,030	− 90,701

(ii) *Geelong Waterworks and Sewerage Trust.* (*a*) *General.* The Geelong Waterworks and Sewerage Trust was constituted in 1908 and reconstituted under the Geelong Waterworks and Sewerage Act in 1910. It was further reconstituted in September, 1950 to include a Government nominee (Chairman) and provision was made for a commissioner to be elected by the ratepayers of the Shire of Corio, making a total of seven commissioners instead of five as formerly. The amount of loan money which may be raised is limited to £900,000 for water supply undertaking, £760,000 for sewerage undertaking, and £270,000 for sewerage installation to properties under the deferred payment system. The population supplied is estimated by the Trust at 57,800. This and other general information relates to 30th June, 1950.

(*b*) *Water Supply.* The catchment area is about 16,000 acres. There are five storage reservoirs and seven service basins whose total storage capacity is 2,746 million gallons. In addition, the State Rivers and Water Supply Commission has made available a supplementary supply of a minimum quantity of 545 million gallons of water per annum from the Bellarine Peninsula System. The total expenditure on water supply to 30th June, 1950 was £888,167. Expenditure for 1949–50 comprised £37,268 (£34,905 in 1948–49) on working expenses and £45,865 (£43,028 in 1948–49) on interest, sinking fund and reserves, and the revenue for the year 1949–50 was £84,410 (£82,844 in 1948–49). The sinking fund appropriations at June, 1950 amounted to £117,807. The replacement and contingencies reserve amounted to £166,274. There is a water rate of 1s. 3d. in the £1 (with minima of 5s. for unbuilt-on land and £1 for tenements) on the net annual value of ratable properties.

(*c*) *Sewerage Works.* The sewerage scheme consists of a main outfall sewer to the ocean at Black Rock, about 9 miles from Geelong, and 150 miles of main and reticulation sewers. The sewerage area is 9,571 acres, and the number of buildings within the sewered areas is 13,682 of which 13,040 have been connected. The number of buildings within the drainage area is 13,900. The total expenditure to 30th June, 1950 on sewerage works was £674,242, and on the cost of sewerage installation under deferred payment conditions £258,344, of which £515 was outstanding. The revenue in 1949–50 amounted to £55,831 (55,523 in 1948–49) and the expenditure comprised £16,465 (£15,882 in 1948–49) on working expenses and £35,831 (£35,814 in 1948–49) on interest, sinking fund and reserves. Sinking fund appropriations at June, 1950 were £104,838. Replacement and contingencies reserve amounted to £140,899. A general rate of 1s. 3d. in the £1 is levied on the net annual value of ratable properties.

(iii) *The Ballarat Water Commission and the Ballarat Sewerage Authority.* (*a*) *General.* The Ballarat Water Commission was constituted on 1st July, 1880, and the Ballarat Sewerage Authority on 30th November, 1920. The members of the Water Commission constitute the Sewerage Authority. The Commissioners number seven, three (one of whom is chairman) being appointed by the Government, and four being elected by the Council of the City of Ballarat. General information is as at 31st December, 1949 and financial information is given for the years 1949 and 1950.

(*b*) *Water Supply.* The Water Supply District embraces an area of about 65 square miles, containing a population of about 50,000. The total storage capacity of the six reservoirs is 2,332 million gallons and the catchment area is 17,545 acres.

The capital cost of construction of the waterworks was £1,347,090 to 31st December, 1949. The liabilities are loans due to the Government, amounting to £827,890 at 31st December, 1949. The revenue for the year 1950 was £75,596 (£67,985 in 1949). Working expenses during 1950 amounted to £32,216 (£29,324 in 1949) and interest and other charges to £42,867 (£36,015 in 1949). A rate of 1s. 3d. in the £1 is levied on the net annual value of all ratable properties, with a minimum of 15s. per annum for land on which there is a building or water supply.

(*c*) *Sewerage.* The Ballarat sewerage district embraces the City of Ballarat and part of the Shire of Ballarat. Work was commenced in 1922 and up to 31st December, 1950 the Authority had constructed a disposals works, 1 mile of outfall sewer, 2.1 miles of main sewer, 14.7 miles of sub-mains and 90 miles of reticulation. The capital cost of sewerage construction works to 31st December, 1950 was £554,188. The method of sewage disposal is by sedimentation, oxidation and sludge digestion. One hundred and nineteen sewered areas had been declared as at 31st December, 1950. Assessments in the sewerage district numbered 13,603, while those in sewered areas numbered 11,175. There were 9,591 buildings connected.

The scheme is financed by debenture-issue loans from various financial institutions. The liabilities on account of loans secured for construction at 31st December, 1950 amounted to £461,701, redemption payments at that date totalling £158,967. An expenditure of £157,122 was incurred for house connexions, the whole of which has been redeemed. Revenue during 1950 (1949 in parentheses) amounted to £42,098 (£44,324) and expenditure, including £25,912 (£26,262) on interest and redemption, to £42,634 (£50,636).

A general rate of 1s. 5d. in the £1 is levied on the net annual value of all properties within the drainage area.

(iv) *Sewerage Authorities.* At 30th June, 1950, 54 sewerage authorities had been constituted under the provisions of the Sewerage Districts Acts in districts outside the areas under the control of the Melbourne and Metropolitan Board of Works and the Geelong Waterworks and Sewerage Trust, and systems were in operation in 28 districts (including three partly operating) serving a population of 182,400 persons.

In addition, sewerage authorities were constituted in a further 26 districts at this date, but their operations had either been suspended or had not commenced.

(v) *Water Supply in Country Towns and Districts.* Most of the country waterworks are controlled by the State Rivers and Water Supply Commission, but in some instances the control is by waterworks trusts or by municipal corporations.

The waterworks controlled by the State Rivers and Water Supply Commission at 30th June, 1950 included 35 large reservoirs and 234 subsidiary reservoirs and service basins with a total storage capacity of 537,490 million gallons (1,974,260 acre feet).

Length of channels was 15,221 miles (irrigation, 4,643 miles, domestic and stock, 8,505 miles, drainage and flood protection, 2,073 miles) and of pipe lines 1,160 miles. The quantity of water delivered to water users during 1949–50 was 526,875 acre feet (720,427 acre feet in 1948–49). The Commission administered 69 rural districts during 1949–50 (29 irrigation districts, 35 waterworks districts, 4 flood protection districts and 1 drainage district), and the reticulated pipe supplies for domestic and industrial purposes in 129 urban districts. In addition, 120 urban districts were administered by waterworks trusts and 15 by local governing bodies. The populations served in these groups of urban districts numbered, respectively, 148,140, 243,200 and 78,950 persons. The table below is a summary of the Commission's finances for operations in districts under its control for the years 1938–39 and 1945–46 to 1949–50 :—

STATE RIVERS AND WATER SUPPLY COMMISSION, VICTORIA : FINANCES. (a)

(£.)

Year.	Total Loan Capital Expenditure to 30th June.	Receipts.	Payments.				
			Operating Expenses.	Interest on Capital Allotted.	Depreciation.	Redemption.	Total.
1938–39 ..	24,223,037	560,680	476,085	145,105	27,553	4,922	653,665
1945–46 ..	26,417,497	773,423	1,110,170	41,864	48,420	1,767	1,202,221
1946–47 ..	27,632,136	919,347	1,084,841	39,961	118,701	1,678	1,245,181
1947–48 ..	29,228,673	1,050,528	1,199,552	39,836	55,303	1,660	1,296,351
1948–49 ..	31,226,345	1,186,313	1,319,291	39,208	60,553	1,989	1,421,041
1949–50 ..	35,041,827	1,433,561	1,519,659	38,117	66,441	3,055	1,627,272

(a) Excludes Waterworks Trusts and Local Governing Bodies.

The total loan capital expenditure of waterworks trusts and local governing bodies at 30th June, 1950 was £5,638,471, making a grand total of £40,680,298 when added to the figure for works under the control of the Commission. The net loan capital after redemption payments of £1,646,520 was £39,033,778.

The financial operations of the State Rivers and Water Supply Commission form part of Consolidated Revenue Fund, but are included in this section for convenience. The major proportion of the interest payable is borne by the State and is additional to that shown above. The net expenditure borne by the State during 1949–50 was £1,370,333 (£1,342,708 in 1948–49).

3. **Queensland.**—(i) *Brisbane City Council—to 30th June*, 1950. (*a*) *General.* This organization conducts the water supply and sewerage systems of the City of Greater Brisbane. Prior to 1928, water and sewerage activities had been controlled by the Metropolitan Water and Sewerage Board, but were then absorbed by the Brisbane City Council, which also supplies, in bulk, the whole of the water used by the City of Ipswich and the Town of Redcliffe.

(*b*) *Water Supply.* Water storage facilities comprise the following (available capacities are shown in parentheses) :—Somerset Reservoir, 32,000 million gallons (32,000 million gallons) ; Lake Manchester, 5,806 million gallons (5,725 million gallons) ; Brisbane River, 543 million gallons (484 million gallons) ; Pure Water Reservoir, Holt's Hill, 8.3 million gallons (8.3 million gallons) ; Enoggera Reservoir, 1,000 million gallons (631 million gallons) ; Gold Creek Reservoir, 407 million gallons (400 million gallons). There are eleven service reservoirs with a capacity of approximately 35.9 million gallons. The Somerset reservoir is under the control of the Stanley River Works Board and is a dual purpose project with a designed total holding capacity of 200,000 million gallons, 55,000 million gallons to be for water storage and 145,000 million gallons for flood mitigation. Water rating at 30th June, 1950 was 5d. in the £1 of unimproved capital value for improved properties, and 3d. in the £1 for vacant lands, with a minimum of £3 10s. and £2 6s. 8d. respectively. The following table is a summary of operations of the complete Brisbane City Council system (metropolitan area, Ipswich and Redcliffe) for the years 1938–39 and 1945–46 to 1949–50 :—

WATER SUPPLY, BRISBANE (*a*) : SERVICES.

Year.	Services Connected.	Estimated Population Supplied.	Average Daily Consumption.	Total Consumption for year.	Average Daily Consumption.		Length of Trunk and Reticulation Mains.	Number of Meters.
					Per Service.	Per Head of Estimated Population.		
			Mill. gals.	Mill. gals.	Gallons.	Gallons.	Miles.	
1938–39 ..	81,389	345,903	15.9	5,791	195	45.9	1,169	(*b*)
1945–46 ..	94,032	385,531	22.5	8,206	239	58.3	1,275	52,620
1946–47 ..	98,803	405,093	22.8	8,317	231	56.3	1,299	52,645
1947–48 ..	103,846	425,769	22.9	8,365	220	53.7	1,330	52,699
1948–49 ..	108,671	445,551	24.2	8,826	223	54.3	1,344	52,755
1949–50 ..	111,363	445,897	26.1	9,540	235	58.6	1,376	52,807

(*a*) Includes Ipswich and Redcliffe. (*b*) Not available.

(*c*) *Sewerage.* The sewage treatment works are situated at Luggage Point on the north bank at the entrance to the Brisbane River. The treatment plan is the activated sludge system, but this has not been put into operation, and since the commencement of pumping operations in 1923 a sedimentation plant only has been used. Sewerage rating at 30th June, 1950 was 4d. in the £1 of unimproved capital value for improved properties, and 3d. in the £1 for vacant lands, with a minimum of £3 10s. and £3 respectively. The following table is a summary of operations of the Brisbane sewerage scheme for the years 1938–39 and 1945–46 to 1949–50 :—

SEWERAGE, BRISBANE : SERVICES.

Year.	Premises Connected.	Estimated Population Served.	Total Sewage Pumped for the Year.	Length of Main, Branch, Reticulation, etc. Sewers.
			Mill. gals.	Miles.
1938–39	33,248	149,616	(*a*)	484
1945–46	41,381	169,662	4,632	533
1946–47	42,246	173,209	4,539	549
1947–48	43,485	178,289	4,696	567
1948–49	44,901	184,094	4,697	580
1949–50	46,330	189,953	4,967	590

(*a*) Not available.

(*d*) *Finances.* The following table shows particulars of the finances of the water supply and sewerage undertakings of the Brisbane City Council for the years 1938–39 and 1945–46 to 1949–50 :—

WATER SUPPLY AND SEWERAGE, BRISBANE : FINANCES.

(£.)

Service and Year.	Gross Capital Cost.	Revenue.	Expenditure.			Surplus (+) or Deficit (−).
			Working Expenses.	Interest, Redemption, etc. Charges.	Total.	
Water Supply—						
1938–39	4,849,732	606,244	129,219	280,827	422,366	+ 183,878
1945–46	6,637,459	754,521	210,718	301,609	550,605	+ 203,916
1946–47	6,906,676	744,989	225,343	315,595	596,948	+ 148,041
1947–48	7,156,116	765,936	255,430	335,307	633,982	+ 131,954
1948–49	7,356,335	815,673	307,130	338,963	703,092	+ 112,581
1949–50	7,579,798	866,366	353,805	276,796	700,237	+ 166,129
Sewerage—						
1938–39	5,992,936	240,963	52,792	403,386	485,974	− 245,011
1945–46	6,540,181	234,731	57,135	335,308	410,801	− 176,070
1946–47	6,763,448	234,032	57,600	224,194	312,152	− 78,120
1947–48	7,048,086	254,777	63,998	246,983	343,259	− 88,482
1948–49	7,526,302	285,194	76,098	248,341	346,120	− 60,926
1949–50	8,117,835	412,833	87,100	264,972	379,299	+ 33,534

(ii) *Country Towns.* (*a*) *Water Supply.* In addition to the City of Brisbane, there were, at 30th June, 1950, 95 cities and towns in Queensland provided with water supply systems controlled by municipal and shire councils.

(*b*) *Sewerage Systems.* At 30th June, 1950, there were 12 cities or towns outside the metropolitan area—Bundaberg, Charleville, Cunnamulla, Goondiwindi, Ipswich, Mackay, Maryborough, Quilpie, Rockhampton, Toowoomba, Townsville and Warwick—with sewerage systems. A sewerage system was in course of construction in Mt. Isa.

(*c*) *Finances.* The receipts (other than loan) of water undertakings controlled by the cities and towns referred to above amounted to £636,990 in 1949–50 (£564,146 in 1948–49). Expenditure amounted to £633,488, including £208,900 for debt charges (£576,429 and £208,135 in 1948–49). In addition, loan expenditure amounted to £349,183 (£209,980 in 1948–49).

Finances of sewerage undertakings are incorporated in council general funds and are not available separately.

4. **South Australia.**—(i) *General.* The water supply and sewerage systems in this State were constructed and are maintained by the Engineering and Water Supply Department under the control of the Minister of Works. The works controlled comprise the Adelaide, Barossa, Baroota Creek, Beetaloo, Bundaleer, Tod River, Warren and other country water districts systems, the Morgan-Whyalla water supply system, the Adelaide metropolitan sewerage system, the Murray River Weirs, water conservation, and the Metropolitan Flood Waters Scheme.

(ii) *South Australian Waterworks.* (*a*) *Services.* The table hereunder shows particulars of the area, capacity, etc. of combined metropolitan and country waterworks for the years 1938–39 and 1945–46 to 1949–50 :—

WATERWORKS, SOUTH AUSTRALIA : SERVICES.

Year.	Assessments.(*a*)		Area of Districts Supplied. (*a*)	Capacity of Reservoirs, Tanks, etc.	Length of Mains.	Number of Meters.
	Number.	Annual Value.				
		£	Acres.	Mill. gals.	Miles.	
1938–39 ..	185,625	6,302,445	11,857,968	23,814	6,384	97,074
1945–46 ..	196,021	7,035,516	11,901,977	23,910	6,845	103,462
1946–47 ..	198,952	7,190,146	11,932,461	23,920	6,927	103,514
1947–48 ..	203,422	7,405,970	11,953,022	23,927	6,997	104,726
1948–49 ..	206,904	7,694,428	11,953,235	23,941	7,056	104,649
1949–50 ..	210,808	8,113,905	11,956,885	23,942	7,126	107,092

(*a*) Excludes Morgan-Whyalla Water Supply—water sold by measure.

(*b*) *Finances.* Figures for 1938–39 and 1945–46 to 1949–50 are shown in the following table.

WATERWORKS, SOUTH AUSTRALIA : FINANCES.

(£.)

Year.	Invested Capital.	Revenue.	Expenditure.			Surplus (+) or Deficit(—).
			Working Expenses.	Interest and Sinking Fund.	Total.	
1938–39 ..	14,649,052	654,688	242,528	651,972	894,500	— 239,812
1945–46 ..	18,712,037	853,406	520,078	685,615	1,205,693	— 352,287
1946–47 ..	19,577,522	856,733	542,203	676,604	1,218,807	— 362,074
1947–48 ..	20,229,154	935,693	588,703	680,550	1,269,253	— 333,560
1948–49 ..	20,399,213	978,339	670,447	695,547	1,365,994	— 387,655
1949–50 ..	21,247,004	1,016,078	817,696	705,700	1,523,396	— 507,318

(iii) *Adelaide Waterworks.* At 30th June, 1950 the Adelaide waterworks supplied a district of 144,026 acres. The capacity of its five reservoirs was 14,466 million gallons and there were 1,636 miles of mains.

Two major projects are in hand—(i) the construction of a large reservoir on the South Para River to provide additional storage to serve the lower northern areas of the State and to make some additional provision for the metropolitan area, and (ii) bringing River Murray water into Adelaide to supplement the metropolitan and Warren system areas and to serve country areas en route. The capacity of the new reservoir will be about 10,000 million gallons and the pipeline from the Murray near Mannum will deliver about 11,000 million gallons per annum.

Particulars of finances for the years 1938–39 and 1945–46 to 1949–50 are shown below :—

ADELAIDE WATERWORKS : FINANCES.

(£.)

Year.	Invested Capital.	Revenue.	Expenditure.			Surplus (+) or Deficit(−).
			Working Expenses.	Interest and Sinking Fund Charges.	Total.	
1938–39 ..	4,676,110	446,459	111,347	202,279	313,626	+ 132,833
1945–46 ..	5,335,798	517,555	185,603	196,576	382,179	+ 135,376
1946–47 ..	6,018,680	521,962	209,107	200,105	409,212	+ 112,750
1947–48 ..	6,253,146	574,687	211,450	203,510	414,960	+ 159,727
1948–49 ..	6,248,465	607,718	246,951	210,898	457,849	+ 149,869
1949–50 ..	6,665,805	630,765	310,382	218,737	529,119	+ 101,646

(iv) *Adelaide Metropolitan Sewerage.* The Adelaide metropolitan sewerage system, comprising the Adelaide, Glenelg and Port Adelaide areas, with drainage areas of 88 square miles in all, includes a sewage farm, and treatment works at Glenelg and Port Adelaide. The total quantity of sewage pumped by the various stations was 2,713 million gallons during 1949-50 as compared with 2,579 million gallons during 1948–49. Other particulars for 1938–39 and 1945–46 to 1949–50 are shown hereunder :—

ADELAIDE METROPOLITAN SEWERAGE : SUMMARY.

Year.	Length of Sewers.	Number of Connexions.	Invested Capital.	Revenue.	Expenditure.			Surplus (+) or Deficit(−).
					Working Expenses.	Interest and Sinking Fund.	Total.	
	Miles.		£	£	£	£	£	£
1938–39 ..	923	80,745	3,361,034	268,880	77,023	150,273	227,296	+ 41,584
1945–46 ..	985	91,201	3,874,065	300,207	121,554	148,283	269,837	+ 30,370
1946–47 ..	1,008	93,440	4,034,770	307,215	135,868	144,702	280,570	+ 26,645
1947–48 ..	1,025	96,057	4,176,725	319,078	159,509	145,732	305,241	+ 13,837
1948–49 ..	1,048	98,948	4,324,787	333,572	182,874	148,754	331,628	+ 1,944
1949–50 ..	1,092	102,782	4,629,510	352,631	209,410	154,959	364,369	− 11,738

(v) *Country Water Supply.* Water district systems outside Adelaide at 30th June, 1950 comprised an area of 11,812,939 acres, and the capacity of the reservoirs was 9,476 million gallons. These figures exclude the Morgan-Whyalla supply system, which obtains its water from the River Murray. The storage tanks of this system had a capacity of 44 million gallons.

Construction work is proceeding on the scheme for the augmentation of the Tod River District supplies, and for the supply of other areas not already served, by utilizing water from the Uley-Wanilla sub-artesian basin. Construction had progressed to the stage, at 30th June, 1950, where 434 million gallons could be pumped from the basin to meet essential requirements.

At the request of the Commonwealth, the Engineering and Water Supply Department undertook the construction above ground of a 10-in. pipeline, together with service reservoirs, pumping stations, etc., from Port Augusta to the Guided Missile Range at Woomera, a distance of about 110 miles. This project was completed in June, 1949.

To bring a permanent supply of water to the Yorke Peninsula, contracts were let for 76 miles of steel pipes for the enlargement of the main between the Bundaleer and Clinton Reservoirs, but shortage of steel plate has delayed progress.

The following table gives financial information on country waterworks for 1938–39 and 1945–46 to 1949–50 :—

COUNTRY WATERWORKS, SOUTH AUSTRALIA : FINANCES.(a)

(£.)

Year.	Invested Capital.	Revenue.	Expenditure.			Surplus (+) or Deficit(−).
			Working Expenses.	Interest.	Total.	
1938–39 ..	10,015,613	207,569	130,523	449,691	580,214	− 372,645
1945–46 ..	10,833,353	247,733	304,848	406,127	710,975	− 463,242
1946–47 ..	11,231,493	244,495	307,379	394,392	701,771	− 457,276
1947–48 ..	11,643,730	270,738	337,557	395,246	732,803	− 462,065
1948–49 ..	11,616,857	286,646	395,717	402,809	798,526	− 511,880
1949–50 ..	12,056,803	298,256	508,759	405,355	914,114	− 615,858

(a) Excludes Morgan-Whyalla system.

(vi) *Morgan-Whyalla Water Supply Scheme.* This scheme, which involved the laying of 223 miles of main, was officially opened on 31st March, 1944, the capital invested to 30th June, 1950 being £2,524,396. Particulars of this scheme, where applicable, are included in the tables of the combined waterworks in section (ii) above. The water is sold by measure ; hence particulars of assessments and area supplied do not apply. During 1948–49 the water used from the system between Hanson and Whyalla amounted to 965 million gallons and during 1949–50 to 1,015 million gallons. Revenue for the year 1948–49 was £124,818, working expenses, etc. £68,622, interest charges £81,840, net loss £25,644. Corresponding figures for 1949–50 were, respectively, £178,779, £90,277, £81,608 and a surplus of £6,894.

5. **Western Australia.**—(i) *General.* The water supply and sewerage systems of Western Australia are principally under the management of Government Departments, and are divided into the following categories :—(a) Metropolitan Water Supply, Sewerage and Drainage, covering Perth, Fremantle, Claremont, Guildford, Midland Junction and Armadale District ; (b) Goldfields Water Supply ; (c) Water Supply of other towns, etc. ; (d) Agricultural Water Supply and (e) Artesian and sub-artesian waters.

(ii) *Metropolitan Water Supply, Sewerage and Drainage.* (a) *General.* The sources of the metropolitan water supply are the Canning Dam, Churchman Brook, Wongong Brook, Victoria Reservoir, Armadale Pipe Head Dam and Well, and certain bores. The largest reservoir, the Canning Dam, has a capacity of 20,550 million gallons, about 5,000 million gallons more than that of the recently increased Mundaring Reservoir to which it is linked by a pipe line.

The sewage treatment works of Perth and suburbs consist of primary sedimentation with separate sludge digestion and discharge of all effluent direct to the ocean. Fremantle treatment works consist of septic tanks with ocean outfall for effluent. There are three treatment works, situated at West Subiaco, Swanbourne and Fremantle.

(b) *Water Supply.* The following table shows particulars of water supply services for 1938–39 and 1945–46 to 1949–50 :—

METROPOLITAN WATER SUPPLY, WESTERN AUSTRALIA : SERVICES.

Year.	Number of Services.	Estimated Population Supplied.	Average Daily Consumption	Total Consumption for Year.	Average Daily Consumption.		Length of Mains.	Number of Meters.
					Per Service.	Per Head of Estimated Population.		
			Mill. gals.	Mill. gals.	Gallons.	Gallons.	Miles.	
1938–39 ..	61,467	248,248	14.1	5,147	229	56.8	953	40,014
1945–46 ..	68,310	247,090	22.0	8,041	323	89.2	1,054	41,923
1946–47 ..	70,970	279,000	24.7	9,022	348	88.6	1,107	42,968
1947–48 ..	73,601	284,915	26.9	9,838	365	94.4	1,137	44,795
1948–49 ..	76,562	290,962	27.2	9,918	355	93.5	1,173	47,073
1949–50 ..	79,835	297,123	29.1	10,618	364	97.9	1,224	49,370

Water rating for 1949–50 was 1s. 6d. in the £1 on annual valuation, with a minimum of 10s.

(*c*) *Sewerage and Drainage.* Some particulars of the metropolitan sewerage and drainage services for 1938–39 and 1945–46 to 1949–50 are shown below :—

METROPOLITAN SEWERAGE AND DRAINAGE, WESTERN AUSTRALIA : SERVICES.

Year.	Houses Connected.	Estimated Population Served.	Sewage Pumped for the Year.(*b*)	Length of Sewers.	Length of Stormwater Drains.
			Mill. gals.	Miles.	Miles.
1938–39..	36,652	162,457	1,030	444	31
1945–46..	43,509	(*a*)	1,994	529	33
1946–47..	44,638	(*a*)	2,160	537	33
1947–48..	45,977	193,103	2,263	550	34
1948–49..	47,446	199,273	2,273	569	34
1949–50..	48,909	205,418	2,326	588	34

(*a*) Revised Census figure not available. (*b*) Aggregate of quantities pumped by the various stations.

Sewerage rating for 1949–50 was 1s. 4d. in the £1 on annual valuation, with a minimum of 7s. 6d. Stormwater drainage rating was 5d. with a minimum of 2s. 6d.

(*d*) *Finances.* The following table shows particulars of the finances of the Western Australian Metropolitan Water Supply, Sewerage and Drainage Department for the years 1938–39 and 1945–46 to 1949–50 ;—

METROPOLITAN WATER SUPPLY AND SEWERAGE AND DRAINAGE, WESTERN AUSTRALIA : FINANCES.

(£.)

Service and Year.	Capital Cost.	Revenue.	Expenditure.			Surplus (+) or Deficit (−).
			Working Expenses.	Interest and Sinking Fund Charges.	Total.	
Water Supply—						
1938–39	4,898,167	285,313	50,975	228,527	279,502	+ 5,811
1945–46	5,355,908	360,904	90,279	253,528	343,807	+ 17,097
1946–47	5,516,603	372,168	110,572	236,432	347,004	+ 25,164
1947–48	5,669,761	392,761	117,930	243,613	361,543	+ 31,218
1948–49	5,899,578	416,817	136,499	253,244	389,743	+ 27,074
1949–50	6,200,989	452,955	186,219	224,958	411,177	+ 41,778
Sewerage and Drainage—						
1938–39	3,497,938	174,950	30,630	149,714	180,344	− 5,394
1945–46	3,885,585	214,604	40,457	205,572	246,029	− 31,425
1946–47	3,992,651	219,359	47,401	190,472	237,873	− 18,514
1947–48	4,148,784	223,090	51,119	196,965	248,084	− 24,994
1948–49	4,359,547	259,597	59,182	206,264	265,446	− 5,849
1949–50	4,567,278	274,113	84,988	196,234	281,222	− 7,109

(iii) *Goldfields Water Supply.* The source of supply for Kalgoorlie, Coolgardie and adjacent goldfields, as well as for the towns and districts on or near the pipeline, is the Mundaring Reservoir, whose capacity has recently been increased from 4,650 million gallons to 15,100 million gallons (*see* below). This scheme is now linked by pipeline with the Canning Dam. Plans have been forumlated by the State Government, assisted financially by the Commonwealth Government, for a comprehensively reticulated water scheme at an estimated cost of approximately £4,000,000 to serve an area of about 4,000,000 acres of farm lands and some 23 agricultural towns, including the principal towns on the Great Southern Railway, and to increase the supply to the Eastern Goldfields to permit expansion of the gold-mining industry. The scheme involves the raising of the impounding walls of Mundaring Weir and Wellington Dam to increase the storage capacity of these reservoirs to 15,000 million and 38,000 million gallons respectively. The following table shows details for 1938–39 and 1945–46 to 1949–50 :—

GOLDFIELDS WATER SUPPLY, WESTERN AUSTRALIA : SUMMARY.

Year.	Number of Services.	Total Consumption.	Length of Water Mains.	Number of Meters.	Capital Cost.	Revenue.	Expenditure.(a)	Surplus (+) or Deficit(–).
		Mill. gals.	Miles.		£	£	£	£
1938–39 ..	13,670	1,735	1,720	10,872	5,527,890	331,457	298,531	+ 32,926
1945–46 ..	14,528	1,831	1,750	12,699	6,178,682	317,913	405,615	– 87,702
1946–47 ..	15,130	1,975	1,757	13,163	6,283,631	343,500	396,964	– 53,464
1947–48 ..	15,411	2,028	1,768	13,423	6,425,775	338,892	480,571	– 141,679
1948–49 ..	15,669	2,131	1,773	13,639	6,614,390	341,052	533,851	– 192,799
1949–50 ..	16,063	2,208	1,777	13,991	6,803,271	346,660	566,614	– 219,954

(a) Includes interest and sinking fund.

(iv) *Water Supply of Other Towns, etc.* (a) *Controlled by Public Works Department.* During 1949–50 (1948–49 in parenthesis) water supplied to other towns and districts, excluding minor water supplies, amounted to 651 (564) million gallons, including service to adjacent mines, 18 (20) million gallons, and railways 63 (60) million gallons. Estimated population served numbered 41,865 (37,587).

(b) *Controlled by Commonwealth and State Government Railways.* Consumption for the year ended 30th June, 1950 (1948–49 in parentheses) was 296 (399) million gallons. In addition, 457 (459) million gallons were obtained from other sources, mainly the Goldfields Water Scheme and the Metropolitan Water Supply.

(c) *Water Boards not Controlled by Government.* During 1949–50 (1948–49 in parentheses) approximately 372 (367) million gallons of water were supplied to an estimated population of 17,770 (17,731).

(v) *Agricultural Water Supply.* During the thirty-eight years from 1st July, 1910 to 30th June, 1950, 574 tanks were built, 387 wells sunk, and 3,040 bores put down to a total depth of 211,779 feet. Of the bores put down, 644 yielded fresh, and 383 stock, water.

(vi) *Artesian and Sub-artesian Waters.* Up to 30th June, 1950 the total number of bores put down in search of artesian or sub-artesian water and in which water was struck (exclusive of operations by Defence Services) was 454, ranging in depth from 21 to 4,006 feet.

6. **Tasmania.**—(i) *Waterworks.* At the end of 1949–50 (1948–49 in parentheses) there were 36 (36) municipal waterworks in Tasmania. The capacity of the reservoirs was about 900 million gallons, the estimated population served was 188,598 (174,856), the number of properties assessed was 58,782 (55,458), and the length of aqueducts, mains and reticulation was about 1,075 miles. Costs of construction amounted to £1,925,902 (£1,927,009). The largest of these undertakings is Hobart, with a reservoir capacity at the end of 1949–50 of 578 million gallons, and 156 miles of reticulation and 92 miles of aqueduct and main.

(ii) *Sewerage.* Sewerage in Tasmania also is the concern of local authorities.

§ 6. Harbour Boards and Trusts.

NOTE.—The number and net tonnage of all vessels which entered the major ports in each State during the years 1938–39 and 1946–47 to 1949–50 are shown in Chapter V.—Transport and Communication, § 3. Shipping at Principal Ports. Particulars of oversea and interstate cargo discharged and shipped during 1949–50 are shown in § 6 of the same chapter.

1. **New South Wales.**—(i) *Maritime Services Board of New South Wales.* (a) *General.* The Maritime Services Board of New South Wales is a corporate body of five Commissioners, three of whom are full-time members and two, representing shipping and

commercial interests, part-time members. The Board was brought into existence on 1st February, 1936 by the Maritime Services Act 1935 in order to co-ordinate the port and navigation services of the State, which had previously been administered by the Sydney Harbour Trust and by the State Department of Navigation.

The Board exercises general control over intra-State shipping, including the survey and certification of vessels, the licensing of harbour craft and the examination and issue of certificates to officers; is responsible for the provision of pilotage services, lights, beacons, buoys and other port facilities; imposes and collects rates and charges on goods and vessels; and is vested with the general control and management of the navigable waters and ports within the State.

At the Port of Sydney the Board is also responsible for the provision of adequate wharfage and channels, and carries out all construction, maintenance and dredging work. At other ports of New South Wales such work is undertaken by the Department of Public Works on behalf of the Board.

(*b*) *Port of Sydney.* The entrance to Sydney Harbour, the principal port of New South Wales, is nearly a mile wide, and the depth of its navigable channel is not less than 80 feet. Between the entrance, known as "The Heads", and the Harbour proper, a distance of 4 miles, there are two separate channels, each 700 feet wide, the Western Channel not less than 43 feet deep (low water ordinary spring tides) and the Eastern Channel 40 feet deep. The foreshores, which have been reduced by reclamations, are 152 miles in length and the total area of the port is 13,600 acres, or 21 square miles, of which about one-half has a depth of 30 feet or more at low water ordinary spring tide. The mean range of tides is 3 feet 6 inches.

The wharves are situated in close proximity to the business centre of the city, about four or five miles from the Heads. Excluding ferry wharves and jetties used for private purposes, there are 64,676 feet of wharfage controlled by the Maritime Services Board and 9,928 feet of commercial wharfage privately owned. Ferry berths cover 3,427 feet, and the total for all purposes is 78,031 feet. Depth of water at wharves is up to 40 feet. The principal wharves are leased to shipping companies whose vessels engage regularly in the trade of the port; the remainder are reserved for vessels which visit the port occasionally. Special facilities for the storage and handling of staple products such as wheat, wool, etc., are provided and modern plant has been installed for replenishing ships' bunkers with oil or coal.

The docking facilities comprise five large graving docks, four floating docks and eight patent slips. The Captain Cook Graving Dock, opened in March, 1945, is capable of accommodating the largest vessel afloat.

The following table shows particulars of the finances of the Board in respect of the Port of Sydney for 1938–39 and 1945–46 to 1949–50:—

MARITIME SERVICES BOARD: FINANCES OF THE PORT OF SYDNEY.

(£.)

Year.	Total Capital Debt.	Revenue.			Expenditure.			Surplus.
		Wharfage and Transhipment Rates.	Tonnage Rates and Berthing Charges.	Total.	Administration and Maintenance.	Interest, Sinking Fund, Exchange, etc.	Total. (*a*)	
1938–39..	11,276,399	773,501	38,180	1,155,627	380,120	536,781	916,901	238,726
1945–46..	11,048,854	799,734	170,766	1,420,187	640,703	550,957	1,191,660	228,527
1946–47..	11,097,221	725,903	158,521	1,379,882	702,833	540,240	1,243,073	136,809
1947–48..	11,242,140	759,014	167,406	1,446,779	793,319	530,159	1,323,478	123,301
1948–49..	11,334,338	821,376	182,360	1,569,157	923,656	517,715	1,441,371	127,786
1949–50..	11,571,669	925,144	229,092	1,658,203	957,510	526,171	1,483,681	174,522

(*a*) Excludes capital expenditure: 1938–39, £28,576; 1945–46, £77,395; 1946–47, £153,854; 1947–48, £282,345; 1948–49, £221,227; 1949–50, £287,210.

(*c*) *Port of Newcastle.* Newcastle Harbour is administered by the Maritime Services Board and an advisory committee consisting of five members appointed by the Governor. In regard to volume of shipping entered, Newcastle ranks second in importance in New South Wales and sixth in Australia. It is primarily a coal-loading port, and the proximity of the coal field has led to the establishment of important industries, including iron and steel works, in the district. Facilities are available for the shipment of wool, wheat and frozen meat, and a wharf is available for timber.

The area used by shipping is about 570 acres, excluding the entrance to the harbour and the inner basin, which together cover an area of 162 acres. The width of the harbour at the entrance is 1,200 feet, and the navigable channel, with a depth of 25 feet 6 inches at low water, is 350 feet wide. Wharfage accommodation amounts to 19,900 feet, the Maritime Services Board controlling 6,720 feet, the Railways Department 7,000 feet, the Public Works Department 200 feet, and private shipping companies 2,600 feet, while tie-up berths and ferry and depot wharves comprise 3,400 feet.

(*d*) *Port Kembla.* As from 3rd May, 1948, the Maritime Services Board assumed the administration and navigational control of Port Kembla, which had previously been administered by the New South Wales Department of Public Works The Department will, however, continue to be the constructing authority in respect of works, dredging and maintenance. In respect of volume of shipping entered, Port Kembla ranks third in the ports of New South Wales, and about seventh in those of Australia. It has an area of approximately 330 acres, with depths ranging from 20 to 50 feet (low water ordinary spring tide), and wharfage accommodation has been provided for large ocean-going vessels. It is the port of the southern coalfields and for the expanding industrial area in and about Wollongong.

(*e*) *Other Ports.* In addition to the ports of Sydney, Newcastle and Port Kembla, the Board controls 29 outports along the coastline of 609 miles. The shipping trade of these outports is relatively small.

(ii) *Port Charges.* The port charges payable in respect of shipping and ships' cargoes in New South Wales are imposed by the Commonwealth Government in terms of the Lighthouses Act and the Federal Navigation Act, and by the State authorities under the Navigation Act of New South Wales, the Harbour and Tonnage Rates Act, and the Sydney Harbour Trust Act. Since 1st February, 1936, the State enactments have been administered by the Maritime Services Board. The gross collections by the State authorities amounted to £2,005,371 in 1948–49 and £2,278,369 in 1949–50. These figures include the Port of Sydney revenue (*see* table above) and State navigation service collections (£436,214 in 1948–49 and £620,166 in 1949–50). Commonwealth Government revenue from light dues and navigation receipts, for the whole of Australia amounted to £202,574 in 1948–49 and £227,759 in 1949–50.

2. **Victoria.**—(i) *Melbourne Harbor Trust.* (*a*) *General.* Information regarding the origin and constitution of this Trust, which controls the Port of Melbourne, appears in Official Year Book No. 12, p. 970 *et seq.* At 31st December, 1950, the sheds available for wharfage accommodation had a length of 20,093 feet, covering an area of 1,389,982 square feet. The area of water in the bay and River Yarra under the control of the Trust is approximately 5,327 acres and the total length of wharves, piers and jetties in the port is 61,740 feet, giving an area of over 58 acres of wharfage, and 53,109 feet of effective berthing space. During 1950, work commenced on the River Entrance Docks project which provides for the construction of 28 new deep water berths. Other work undertaken during the year provides for new berths at Appleton Dock (ultimately to have eighteen berths), Victoria Dock and South Wharf. The depths of water (low water ordinary spring tide) of main channels and at principal wharves are about 30 feet, the maximum being about 36 feet.

(*b*) *Finances.* The following table shows particulars of the financial operations of the Trust during the years 1939 and 1946 to 1950 :—

MELBOURNE HARBOR TRUST : FINANCES.

(£.)

Year.	Gross Loan Indebtedness.	Revenue.		Expenditure.				Surplus.
		Wharfage and Tonnage Rates.	Total.	Administration and Maintenance.	Interest, Sinking Fund, Exchange, etc.	Depreciation, Renewals and Insurance Account.	Total. (*a*) (*b*)	
1939 ..	4,018,527	689,100	843,899	282,533	270,650	129,160	837,577	6,322
1946 ..	3,973,100	701,591	961,037	424,601	244,890	129,200	958,009	3,028
1947 ..	3,937,709	819,425	1,113,456	399,641	238,084	123,940	944,516	168,940
1948 ..	3,820,203	961,925	1,313,813	471,039	220,463	134,230	1,037,152	276,661
1949 ..	3,766,678	1,118,059	1,471,221	460,955	190,056	121,798	1,015,421	455,800
1950 ..	3,972,029	1,293,923	1,771,074	675,839	187,582	162,883	1,301,687	469,387

(*a*) Includes statutory payments to Consolidated Revenue and Geelong Harbour Trust:—1939, £155,234; 1946, £159,318; 1947, £182,851; 1948, £211,420; 1949, £242,612; 1950, £275,383. (*b*) Excludes capital expenditure :—1939, £128,567; 1946, £403,400; 1947, £375,705; 1948, £393,240; 1949, £623,396; 1950, £1,589,392.

(ii) *Geelong Harbor Trust.* The Geelong Harbor Trust was constituted in 1905, and reconstituted in 1934 under the provisions of the Melbourne and Geelong Harbor Trusts Act 1934. The Trust is under the control of three Commissioners appointed by the Governor-in-Council. Revenue for the years 1949 and 1950 was £152,497 and £193,869 respectively, and revenue expenditure was £134,351 and £162,223. Payments made in respect of capital works amounted to £124,804 in 1949 and £120,000 in 1950, and loans outstanding at the end of each year amounted to £514,896 and £508,459. Depth of water available in Geelong harbour will, upon completion of dredging operations which in 1950 were well advanced, range from 32 to 37 feet (low water ordinary spring tide).

(iii) *Other Ports.* Portland is the only Victorian port other than Melbourne and Geelong of more than minor importance.

3. **Queensland.**—(i) *General.* The ports of Queensland, except Brisbane and certain minor ports, are administered by Harbour Boards with members representing the towns and districts served by the ports. Brisbane and the minor ports are controlled by the State Treasury through the Department of Harbours and Marine, which supervises the engineering activities of the other ports.

(ii) *Brisbane.* Brisbane accommodates comfortably, in its dredged and improved river, the largest vessels in the Australian trade. The main centres for shipping, although further downstream than formerly, because of the increasing size of vessels, are still within easy access of the city. The maximum depths (low water ordinary spring tide) of the shipping channel decrease from 32 feet in the North-West channel to 20 feet in the Bulimba Reach to Victoria Bridge section. Depths at wharves vary between

23 and 29 feet. Adequate dry-docking facilities are available. The finances of Brisbane Harbour for the years 1938–39 and 1945–46 to 1949–50 are shown below :—

BRISBANE HARBOUR : FINANCES.

(£'000.)

Year.	Loan Indebtedness.	Revenue.		Expenditure.		Credit Balance.
		Harbour Dues.	Total.	Working Expenses.	Total (including Interest and Redemption).	
1938–39 ..	1,179	165	173	36	112	(*a*) — 6
1945–46 ..	1,086	146	(*b*) 247	127	206	173
1946–47 ..	1,163	149	171	133	212	132
1947–48 ..	1,219	153	222	126	209	145
1948–49 ..	1,256	190	209	162	250	104
1949–50 ..	1,325	219	299	168	260	143

(*a*) Overdraft. (*b*) Includes accumulated hire charges, etc., for dredging done for the Commonwealth Government.

In addition to Brisbane Harbour, the Department of Harbours and Marine also controls the Brisbane Dry Dock, the Cairncross Dock, the Brisbane River, and ten smaller harbours not administered by Harbour Boards.

(iii) *Harbour Boards.* Harbour Boards control the ports of Bowen, Bundaberg, Cairns, Gladstone, Mackay, Rockhampton and Townsville. Finances for each port for the year 1950 are shown below, together with a summary for the years 1939 and 1946 to 1950.

HARBOUR BOARDS, QUEENSLAND : FINANCES.

(£.)

Harbour Board.	Loan Indebtedness.	Revenue.		Expenditure (excluding Loan).		Surplus (+) or Deficit(—).
		Wharfage and Harbour Dues.	Total.	Working Expenses.	Total (including Interest and Redemption).	
Bowen	293,090	16,851	26,695	11,643	25,876	+ 819
Bundaberg	31,512	1,576	3,342	3,728	5,155	— 1,813
Cairns	163,004	90,702	127,949	97,786	124,384	+ 3,565
Gladstone	105,067	15,574	40,304	22,564	39,355	+ 949
Mackay	354,794	117,810	123,146	23,955	55,053	+ 68,093
Rockhampton ..	528,637	25,366	32,970	27,510	33,921	— 951
Townsville	135,137	111,070	156,313	97,710	124,817	+ 31,496
Total, 1950 ..	1,611,241	378,949	510,719	284,896	408,561	+ 102,158
,, 1949 ..	1,523,644	347,843	464,450	307,716	431,359	+ 33,091
,, 1948 ..	1,477,076	280,360	371,987	213,700	364,118	+ 7,869
,, 1947 ..	1,481,213	234,872	328,464	205,572	330,022	— 1,558
,, 1946 ..	1,489,281	227,931	324,850	175,948	320,078	+ 4,772
,, 1939 ..	1,548,144	249,510	401,439	139,752	343,083	+ 58,356

4. **South Australia.**—*The South Australian Harbours Board.* All South Australian harbours are controlled by the South Australian Harbours Board, which consists of three Commissioners appointed by the Governor for a period of five years and eligible for re-appointment. The Board is responsible to the Minister of Marine for the discharge of its duties and functions, and controls about 60 ports, but at many of them there is little

or no shipping movement. The more important are Adelaide, Augusta, Lincoln, Pirie, Wallaroo and Whyalla. Maximum depths of water (low water ordinary spring tide) at the wharves of these ports range from 20 to 24 feet at Pirie to 35 feet at Adelaide (Outer Harbour). The following table shows the finances of the Board for 1938–39 and 1945–46 to 1949–50.

SOUTH AUSTRALIAN HARBOURS BOARD : FINANCES.

(£.)

Year.	Capital Expenditure to 30th June.	Revenue.	Expenditure from Revenue.				Surplus (+) or Deficit (–).
			Working Expenses.	Interest.	Sinking Fund.	Total.	
1938–39 ..	7,861,905	664,915	205,848	326,719	50,000	582,567	+ 82,348
1945–46 ..	8,224,568	600,658	322,010	301,583	22,696	646,289	– 45,631
1946-47 ..	8,283,775	747,071	371,749	288,833	25,069	685,651	+ 61,420
1947–48 ..	8,367,780	873,059	386,459	281,517	27,585	695,561	+ 177,498
1948–49 ..	8,456,041	938,797	503,563	281,110	30,356	815,029	+ 123,768
1949–50 ..	8,545,084	1,050,742	583,965	281,691	33,327	898,983	+ 151,759

5. **Western Australia.**—(i) *Fremantle Harbour Trust.* Fremantle Harbour is controlled by a board of five Commissioners appointed by the Governor-in-Council. Maximum depth of water (low water ordinary spring tide) at the entrance to the harbour is 36 feet, and at the wharves 32 feet. The length of wharf berth accommodation is 10,566 feet.

Gross earnings for the year 1948–49 amounted to £1,030,816, working expenses to £633,175, interest £130,633, sinking fund £30,964, renewals fund £2,000, and payment of surplus cash to Consolidated Revenue £195,880. Corresponding figures for 1949–50 were £1,243,046, £742,596, £117,791, £32,721, £2,000 and £311,468. The total amount debited to loan capital account at 30th June, 1950 was £2,976,677.

(ii) *Bunbury Harbour Board.* The Bunbury Harbour Board consists of five members appointed by the Government. The depth of water at the entrance and at the wharf is 27 feet (low water ordinary spring tide). Berthage accommodation is 3,700 feet. Gross earnings in 1948-49 were £19,669, working expenses £29,083, and interest £28,969 (1947-48, £22,818, £34,815, £28.363). The total amount debited to loan capital account at 30th June, 1949 was £776,646.

(iii) *Other Ports.* Only the ports of Fremantle and Bunbury in Western Australia are under the control of trusts, the remainder are Government operated. Of these, Albany, Carnarvon and Geraldton and Onslow have the largest amount of shipping movement.

6. **Tasmania.**—There are seven Marine Boards and two Harbour Trusts in Tasmania. The Marine Boards control the ports of Hobart, Launceston, Circular Head, Burnie and Table Cape, Devonport, Strahan, and King Island (Currie), and the Harbour Trusts those of Smithton and Leven. Aggregate receipts of revenue accounts of all these authorities during the year 1948–49 were £368,751 and expenditures £318,528, including loan charges £56,252. Corresponding figures for 1949–50 were £385,506, £397,469 and £61,973. The total receipts of the Hobart Marine Board during 1948–49 were £147,901, loan charges £2,351 and total expenditure £122,669. Corresponding figures for 1949–50 were £144,914, £6,186, and £141,523. Launceston Marine Board receipts during 1948-49 amounted to £83,927, loan charges to £9,893 and total expenditure to £83,927. The figures for 1949–50 were, respectively, £86,639, £9,893 and £86,639. Loan indebtedness of all Marine Boards and Trusts at 30th June, 1950 was £1,179,480, of which £279,620 was in respect of Hobart and £81,431 in respect of Launceston.

Hobart, Launceston, Burnie and Devonport are the principal ports of Tasmania. In addition to their interstate and intra-state traffic, there is also considerable oversea shipping. Depths of water at wharves vary, in general, between 16 and 34 feet (low water ordinary spring tide), but at Hobart there is a depth of water of from 30 to 52 feet.

§ 7. Fire Brigades.

1. **New South Wales.**—(i) *General.* A Board of Fire Commissioners, consisting of eight members, operates under the Fire Brigades Act 1909–1949, and 151 fire districts had been constituted at the end of 1950. The cost of maintenance of fire brigades has been borne in proportions of quarter, quarter, and half by the Government, the municipalities, and the insurance companies concerned, the expenditure so regulated that the proportion payable by the councils in a fire district should not, except in special circumstances, exceed the amount obtainable from ¼d. in the £1 rate on the unimproved capital value of ratable land in the fire district. In June, 1949 legislation was introduced (i) increasing the limit of the Board's borrowing power from £250,000 to £500,000, (ii) providing for the varying of the maximum rate that may be levied by councils, and (iii) altering the basis of contributions so that from 1st January, 1950 local councils and the Government will each pay one-eighth and the insurance companies three-quarters.

Other legislation, introduced in September, 1949 to improve and modernize the law dealing with the prevention of bush fires and to build up the organization of the bush fire-fighting services, provided for the establishment of Fire Regions and a Bush Fire Fighting Fund to be financed from contributions by the Government, councils and insurance companies in the proportion of one-quarter, one-quarter and one-half, respectively. The contribution of any council shall not exceed one-twentieth of a penny in the £1 on the unimproved capital value of ratable land in the area of the council not being land within a fire district constituted under the Fire Brigades Act 1909–1949.

(ii) *Board of Fire Commissioners of New South Wales.* At 31st December, 1950 the authorized strength of the Fire Brigade throughout the fire districts of New South Wales was 292 officers and 823 permanent, 2,039 volunteer, and 1,924 reserve firemen. Corresponding figures for the Sydney Fire District were 240, 774, 321 and 778. The revenue for the year 1950 (figures for the year 1949 in parentheses) was £1,096,617 (£929,610), made up as follows :—From the Government, £134,401 (£226,205) ; municipalities and shires, £134,401 (£226,205) ; fire insurance companies and firms, £806,406 (£452,410) ; and from other sources, £21,409 (£24,790). The disbursements for the year were £1,087,606 (£1,030,269).

2. **Victoria.**—(i) *General.* The Fire Brigades Act of 1928 provided for a Metropolitan Fire Brigades Board and a Country Fire Brigades Board each consisting of nine members. In December, 1944 the latter Board was superseded by the Country Fire Authority under an Act of that title, and the number of members was increased to ten. The income of each Board is derived in equal proportions from the Treasury, the municipalities and insurance companies.

(ii) *Metropolitan Fire Brigades Board.* On 30th June, 1950 the Board had under its control 42 stations, 580 permanent staff, 162 special service and clerical, etc. staff, and 20 partially-paid firemen. The total receipts for 1949–50 (1948–49 in parentheses) were £583,867 (£383,702), comprising contributions £470,179 (£279,764), receipts for services £66,419 (£68,350), and interest and sundries £47,269 (£35,588). The expenditure was £525,954 (£373,526).

(iii) *Country Fire Authority.* This authority, constituted in 1944, is responsible for the prevention and suppression of fires in the " country area of Victoria ", which embraces the whole of the State outside the metropolitan fire district, excluding State forests and certain crown lands. The country area has been divided into 24 fire control regions, three of which (Ballarat, Bendigo and Geelong) are wholly urban and the remainder mixed urban and rural. At 30th June, 1950 there were 171 municipal councils and 126 insurance companies included in the operation of the Act, and 194 urban and 940 rural fire brigades. The effective registered strength of the brigades was 73,717 members.

The receipts for the year 1949–50 (1948–49 in parenthesis) amounted to £135,445 (£115,623). Total expenditure other than loan amounted to £135,069 (£115,574).

3. **Queensland.**—(i) *General.* The Acts of 1920–1931 made provision for the retention of existing fire districts, and for the constitution of new districts. For each district there must be a Fire Brigades Board consisting of seven members, and the cost of maintenance of each brigade is proportioned as follows :—The Treasury two-sevenths, insurance companies three-sevenths, and local authorities two-sevenths. All volunteer fire brigades in a district must be registered.

(ii) *Fire Brigades Boards.* At 30th June, 1950 there were 63 Fire Brigades Boards. The total number of stations was 105, and full-time staff numbered 463, including 13 administrative, 84 officers and 351 firemen. Workshop staff numbered 15. Part-time staff numbered 571, including 63 administrative, 84 officers and 424 firemen. Volunteers numbered 370. The total revenue for the year 1949–50 (figures for 1948–49 in parentheses) was £396,182 (£308,391), received mainly from the following sources—Government £95,312 (£77,681), local authorities £94,971 (£78,053), insurance companies £142,873 (£117,160), and loans (Government and other) £47,967 (£20,012). The total expenditure for the year was £386,760 (£317,689), the chief items being salaries and wages £233,467 (£212,009), and interest and redemption of loans £34,235 (£24,556).

4. **South Australia.**—The Fire Brigades Act 1936–1944 provides for a board of five members, and the expenses and maintenance of brigades are defrayed in the proportion of two-ninths by the Treasury, five-ninths by insurance companies, and two-ninths by the municipalities concerned. The contribution of the Treasury, however, is limited to £10,000 and if two-ninths of the expenses and maintenance exceeds this amount, five-sevenths of the excess is contributed by the insurance companies and two-sevenths by the municipalities. At 30th June, 1950 there were altogether 34 fire brigade stations, of which 12 were metropolitan and 22 country.

The authorized strength of the permanent staff was 329, including 233 officers and men and 77 country auxiliary firemen. The total revenue for the years 1948–49 and 1949–50 was £129,312 and £166,783 respectively, the latter figure being made up as follows :—insurance companies £104,310, Treasury £21,144, and municipalities £41,329.

5. **Western Australia.**—In 1942 certain Municipal and Road Board Districts were constituted fire districts under the control of the Western Australian Fire Brigades Board. There were 27 at 30th June, 1950. The income of the Board is derived in the proportion of two-ninths from the Government, two-ninths from Local Government Authorities, and five-ninths from insurance companies. The number of local government authorities and insurance companies who contributed numbered 52 and 113 respectively. The brigades throughout the State controlled by the Western Australian Fire Brigades Board at 30th September, 1950 numbered 43, with a staff of 1,173, including 210 permanent officers and firemen and 947 volunteer brigade officers and firemen. In addition, there were at 30th June, 1950, 394 registered bush fire brigades sponsored by local authorities under the Bush Fires Act 1937–1950. A Rural Fire Prevention Advisory Committee, acts in an advisory capacity. The revenue for the year ended 30th September, 1949 was £127,395 and the expenditure £134,571. Corresponding figures for the year ended September, 1950 were £156,548 and £149,144.

6. **Tasmania.**—The Fire Brigades Act 1945 provided for the creation of the Fire Brigades Commission of Tasmania to co-ordinate the activities of the 22 existing Fire Brigades Boards, while leaving the responsibility for individual control and management with the Boards. The Commission consists of five members nominated or elected by the Fire Brigades Boards and one member nominated by the Minister. Contributions towards the cost of operations remain on the old basis of one-third each from the Treasury, the municipalities and the insurance companies concerned. The cost for the year 1948–49 amounted to £33,409 and for 1949–50 to £35,953. There were at 30th June, 1950, 27 stations amongst the 22 brigades, and their aggregate staffs numbered 398, including 68 permanent officers and 306 partially-paid firemen, including officers.

CHAPTER XVI.
PRIVATE FINANCE.

NOTE.—This chapter, for convenience, has been sub-divided into seven sections as follows :—

Currency ; Banking, including Savings Banks ; Companies ; Insurance : Friendly Societies ; Probates and Letters of Administration ; and Lotteries, Totalizators and Investments with Bookmakers.

A. CURRENCY.

§ 1. General.

The Australian monetary system is based on the British system of which the unit is the pound (£) divided into 20 shillings (s.) each of 12 pence (d.). When the Australian currency was introduced in 1909 the Australian pound was specified as equivalent to 123.27447 grains of gold $^{11}/_{12}$ ths fine or 113.002 grains of fine gold and, until the depression in 1930, was identical with the pound sterling. There was a gradual depreciation of the Australian pound in terms of sterling from the beginning of 1930 until 3rd December, 1931, when it was stabilized at the rate of £125 Australian = £100 sterling. This relationship has been maintained until the present time. Following the depreciation, no action was taken to define the value of the Australian pound in terms of gold until 5th August, 1947, when the Australian Government advised the International Monetary Fund, in terms of the agreement, that the par value of the Australian pound was 2.86507 grammes (44.2148 grains) of fine gold. From 19th September, 1949 this was reduced to 1.99062 grammes (30.720 grains) of fine gold.

When the Commonwealth was established in 1901, the currency in Australia consisted of United Kingdom gold, silver and bronze coins, notes issued by the banks, and Queensland Treasury notes. Queensland Treasury notes were in circulation in Queensland only, having superseded bank notes in that State after the 1893 crisis. Under the Commonwealth Constitution the control of currency, coinage and legal tender and the issue of paper money were vested in the Commonwealth. The Commonwealth assumed these powers by enacting the Coinage Act 1909 and the Australian Notes Act 1910.

§ 2. Coinage.

1. **Coins in Circulation.**—Brief historical notes relating to the Australian Coinage are given in Official Year Book No. 37, pages 557 and 558. The gross weight, diameter, thickness and metal composition of coins in circulation at 30th June, 1951 are described in the following table :—

AUSTRALIAN COINS IN CIRCULATION AT 30th JUNE, 1951.

Denomination.	Gross Weight.	Diameter.	Thickness.	Metal Composition.	
				Metal.	Proportion.
	Grains.	Millimetres.	Millimetres.		Per cent.
Crown (5s.) ..	436.36	38.38	3.00	Silver .. Copper ..	92.5 7.5
Florin (2s.) ..	174.54	28.68	2.14	Old Issue— Silver .. Copper .. New Issue(a)— Silver .. Copper .. Nickel .. Zinc ..	 92.5 7.5 50.0 40.0 5.0 5.0
Shilling (1s.) ..	87.27	23.83	1.83		
Sixpence (6d.) ..	43.63	19.35	1.40		
Threepence (3d.) ..	21.81	16.13	1.04		
Penny (1d.) ..	145.83	30.81	2.03	Copper .. Tin .. Zinc .. and Copper .. Tin .. Zinc ..	95.5 3.0 1.5 97.0 0.5 2.5
Halfpenny (½d.) ..	87.50	25.48	1.62		

(a) Issued after 1st July, 1947 (Coins dated 1946 and later).

The silver coins issued prior to July, 1947 have a millesimal fineness of 925 (thirty-seven fortieths silver and three fortieths alloy) and those issued after 1st July, 1947 (dated 1946 and later) have a millesimal fineness of 500 (one half silver and one half alloy).

Australian coins are legal tender in Papua, New Guinea, Norfolk Island and Nauru.

From 1910 to 1916 Australian coins were minted in England by the Royal Mint, London, and the Mint, Birmingham Ltd., and in 1916 and 1917 by the Indian Mints. The minting of Australian coins was undertaken by the Australian Mints from 1916 and coins have been minted at the Melbourne branch of the Royal Mint from 1916 to the present time, at the Sydney branch from 1919 until that Mint closed in 1926 and at the Perth branch in 1922 and since 1940.

During the 1939–45 War the two Australian mints were unable to meet the demand for Australian coins and some coins were minted at mints in the United States of America and India. Details of Australian coins obtained from each mint to 30th June, 1951, are given in the following table :—

AUSTRALIAN COINS OBTAINED FROM MINTS FROM 1910 TO 30th JUNE, 1951.

(£'000.)

Mint.	Crown. 5s.	Florin. 2s.	Shilling. 1s.	Six-pence. 6d.	Three-pence. 3d.	Penny. 1d.	Half-penny. ½d.	Total.
Australia—								
Melbourne	276	19,572	3,686	2,217	2,626	796	204	29,377
Perth	..	..	66	..	..	555	196	817
Sydney	..	169	78	140	36	18	47	488
United Kingdom—								
London	..	745	550	210	185	33	13	1,736
Birmingham ..	..	125	25	..	..	21	9	180
India—								
Calcutta	..	..	..	..	..	46	23	69
Bombay	..	..	..	..	..	75	25	100
United States of America—								
San Francisco ..	..	2,800	1,400	325	600	..	..	5,125
Denver	..	..	..	475	400	..	..	875
Total	276	23,411	5,805	3,367	3,847	1,544	517	38,767

2. **Issues of Australian Coins.**—The total issues and withdrawals of Australian silver and bronze coins since 1910 are set out in the following table :—

AUSTRALIAN COINS: SILVER AND BRONZE COIN ISSUED AND WITHDRAWN.

(£.)

Year.	Silver.						Bronze.		
	Crown. 5s.	Florin. 2s.	Shilling. 1s.	Sixpence. 6d.	Three-pence. 3d.	Total.	Penny. 1d.	Half-penny. ½d.	Total.
Issued—									
1910 to 1941 ..	275,600	6,306,100	2,191,100	1,224,400	1,210,500	11,207,700	551,033	185,785	736,818
1941–42..	..	1,505,800	69,000	53,000	64,400	1,692,200	57,230	20,270	77,500
1942–43..	..	3,090,600	781,000	724,200	439,400	5,035,200	126,380	25,100	151,480
1943–44..	..	2,615,000	650,000	200,000	759,400	4,224,400	206,210	77,800	284,010
1944–45..	..	1,343,000	978,800	352,400	150,000	2,824,200	96,340	1,500	97,840
1945–46..	..	1,473,400	..	..	..	1,473,400	30,170	25,310	55,480
1946–47..	..	..	..	..	..	..	7,470	22,710	30,180
1947–48..	..	5,120,200	557,000	250,600	216,400	6,144,200	72,330	31,290	103,620
1948–49..	..	820,000	219,000	195,600	239,200	1,473,800	113,350	52,610	165,960
1949–50..	..	130,000	359,400	256,800	332,000	1,078,200	92,430	57,060	149,490
1950–51..	..	1,006,800	..	110,400	436,000	1,553,200	191,050	17,016	208,066
Total ..	275,600	23,410,900	5,805,300	3,367,400	3,847,300	36,706,500	1,543,993	516,451	2,060,444
Withdrawn—									
1910 to 1949	..	3,649,820	512,010	35,340	133	*a*4.249,143	(*b*) 3,651	(*c*) 19	3,670
1949–50..	..	973,014	866	265	243	(*a*) 974,409	89	28	117
1950–51..	..	1,012,862	9,018	202	167	*a*1,022,316	74	20	94
Total ..	..	5,635,696	521,894	35,807	543	6,245,868	3,814	67	3,881
Net Issues to 30th June, 1951	275,600	17,775,204	5,283,406	3,331,593	3,846,757	30,460,632	1,540,179	516,384	2,056,563

(*a*) Includes the following amounts for which denominations are not available—1910 to 1949, £51,840; 1949–50, £21; 1950–51, £67. (*b*) Includes half-pence to 30th June, 1948. (*c*) Included with pence to 30th June, 1948.

Coin withdrawn between 1947 and 1951 included a considerable quantity of silver coin withdrawn for recoinage.

3. **Legal Tender.**—Imperial gold coins of the specified weight and fineness are legal tender in Australia for any amount. Australian silver coins are legal tender for any amount not exceeding forty shillings and Australian bronze coins are legal tender for any amount not exceeding one shilling.

4. **Profits on Coinage of Silver and Bronze.**—Australian silver and bronze coins are token coins and, as the face value of the coins is greater than the value of the bullion they contain, a profit is made from their issue. This profit forms part of the Commonwealth Consolidated Revenue. In the following table details are given of the value of coins issued, the cost of bullion, the cost of minting and sundry expenses connected with the issue, and the profits made on the issue of coins during the years 1938–39 and 1946–47 to 1950–51.

AUSTRALIAN SILVER AND BRONZE COINS : PROFITS FROM ISSUE.

(£.)

Year.	Coin Issued.	Cost of Bullion.	Loss on Coin Withdrawn. (a)	Gross Profit.	Cost of Minting and Sundry Charges.	Net Profit. (e)
SILVER COIN.						
1938–39 ..	219,600	81,314	(b)	138,286	18,459	119,827
1946–47(c) ..	..	..	(b)	..	245,051	—245,051
1947–48 ..	6,144,200	2,681,284	961,679	2,501,237	114,638	2,386,599
1948–49 ..	1,473,800	545,868	183,941	743,991	78,856	665,135
1949–50 ..	1,078,200	592,900	d —523,275	1,008,575	117,879	890,696
1950–51 ..	1,553,200	860,019	348	692,833	158,457	534,376
BRONZE COIN.						
1938–39 ..	41,800	7,838	(b)	33,962	26,025	7,937
1946–47 ..	30,180	7,714	(b)	22,466	27,332	—4,866
1947–48 ..	103,620	35,868	107	67,645	67,518	127
1948–49 ..	165,960	58,404	90	107,466	132,766	—25,300
1949–50 ..	149,490	63,487	71	85,932	122,660	—36,728
1950–51 ..	208,066	100,875	47	107,144	142,848	—35,704
TOTAL.						
1938–39 ..	261,400	89,152	(b)	172,248	44,484	127,764
1946–47(c) ..	30,180	7,714	(b)	22,466	272,383	—249,917
1947–48 ..	6,247,820	2,717,152	961,786	2,568,882	182,156	2,386,726
1948–49 ..	1,639,760	604,272	184,031	851,457	211,622	639,835
1949–50 ..	1,227,690	656,387	—523,204	1,094,507	240,539	853,968
1950–51 ..	1,761,266	960,894	395	799,977	301,305	498,672

(a) Face value of coin less value of bullion recovered. (b) Included with Cost of Minting and Sundry Charges. (c) During 1946–47 a considerable quantity of new silver was minted but not issued until 1947–48. The cost of minting this coin is included in 1946–47. (d) In 1947–48 and 1948–49 silver in coin withdrawn was brought to account as bullion at a nominal value. In 1949–50 an adjustment was made to bring this value to the face value of the coin withdrawn. This adjustment and a consequent adjustment for an increase in the cost of bullion in coin issued during 1947–48, 1948–49 and 1949–50 are included in this figure. (e) Minus sign (—) denotes a loss.

5. **Australian Mints.**—(i) *General.* Soon after the discovery of gold in Australia a branch of the Royal Mint was established in Sydney. The formal opening took place on 14th May, 1855. The Melbourne branch was opened on 12th June, 1872, and the Perth branch on 20th June, 1899. The States of New South Wales, Victoria and Western Australia provided an annual endowment in return for which the mint receipts were paid to the respective State Treasuries. Owing to losses incurred in its operations, the Sydney branch was closed at the end of 1926.

Since their establishment, the Australian branches of the Royal Mint have been primarily concerned with the refining of gold, minting of Imperial gold coins and the production of bars and ingots of gold bullion for export. The minting of Imperial gold coins was discontinued in September, 1931. In 1916 the Melbourne branch took over the minting of Australian silver and bronze coins from the Royal Mint, London. Australian coins were also minted at the Sydney Mint from 1919 to 1926 and at the Perth Mint in 1922 and from 1940 to the present time. The Melbourne branch has also minted token coins for the Territory of New Guinea and for New Zealand.

(ii) *Gold Receipts and Issues.* (*a*) *Receipts.* The receipts of gold during 1949, 1950 and 1951 and the aggregate at each mint to the end of 1951 were as follows:—

AUSTRALIAN MINTS: RECEIPTS OF GOLD.

Mint.	Deposits during year (Oz.) (*a*)—			Total to end of 1951. Quantity (Oz.)	
	1949.	1950.	1951.	Gross.	Fine.
Sydney(*b*)	..	..	..	42,082,928	36,907,045
Melbourne	284,422	318,832	289,958	48,120,530	42,601,349
Perth	899,269	829,845	863,464	53,750,660	42,504,437
Total	1,183,691	1,148,677	1,153,422	143,954,118	122,012,813

(*a*) Gross weight. (*b*) To end of 1926, when the mint was closed.

(*b*) *Issues.* The Australian mints issue gold bullion for the use of local manufacturers (jewellers, dentists, etc.), and for export. Since September, 1931, when the United Kingdom departed from the gold standard, the minting of gold coins by Australian mints has ceased. Australian exports of gold are mainly in the form of 400-oz. ingots, but in earlier years a considerable amount of gold was shipped to India in 10-oz. bars. Since early in the 1939–45 War all gold has been acquired by the Commonwealth Bank and the export and use of gold has been subject to regulation by the Commonwealth Government. The issues during the years 1949 to 1951, and the total to the end of 1951, are shown in the table below:—

AUSTRALIAN MINTS: ISSUES OF GOLD.

(£.)

Year and Item.	Mint.			
	Sydney.	Melbourne.	Perth.	Total.
(i) Bullion (*a*)—				
1949	..	603,929	2,770,360	3,374,289
1950	..	590,627	2,580,512	3,171,139
1951	..	592,483	2,631,839	3,224,322
Aggregate to 30th June, 1951	7,574,408	32,722,296	73,830,506	114,127,210
(ii) Coin(*b*)—				
Aggregate to 30th June, 1951—				
Sovereigns ..	144,435,550	147,283,131	106,384,197	398,102,878
Half-sovereigns ..	4,781,000	946,780	367,338	6,095,118
Aggregate to 30th June, 1951	149,216,550	148,229,911	106,751,535	404,197,996
Total Gold Issued to 30th June, 1951 ..	156,790,958	180,952,207	180,582,041	518,325,206

(*a*) Value expressed at £3 17s. 10½d. per standard ounce. (*b*) Gold coin has not been issued since September, 1931.

6. **Price of Gold.**—The following table shows the average prices of gold and the average value of the sovereign in London and Australia for the years 1938–39 and 1941–42 to 1950–51. The average price of gold in Australia is based on the Commonwealth Bank's buying price for gold lodged with the mints.

PRICE OF GOLD : LONDON AND AUSTRALIA.

Period.	London.		Australia.		
				Sovereign.	
	Average price per fine oz.	Average value of Sovereign.	Average price per fine oz.	Average value.	Equivalent to a premium of—
	£stg. s. d.	£stg. s. d.	£A. s. d.	£A. s. d.	%
1938–39 ..	7 6 9	1 14 7	9 2 9	2 3 0	115.0
1941–42 ..	8 8 0	1 19 7	10 11 4	2 8 7	142.9
1942–43 ..	8 8 0	1 19 7	10 9 0	2 8 0	140.0
1943–44 ..	8 8 0	1 19 7	10 9 0	2 8 0	140.0
1944–45 ..	8 8 3	1 19 7	10 11 10	2 8 9	143.8
1945–46 ..	8 12 3	2 0 7	10 15 3	2 10 0	150.0
1946–47 ..	8 12 3	2 0 7	10 15 3	2 10 0	150.0
1947–48 ..	8 12 3	2 0 7	10 15 3	2 10 0	150.0
1948–49 ..	8 12 3	2 0 7	10 15 3	2 10 0	150.0
1949–50 ..	11 11 2	2 14 5	14 8 10	3 7 3	236.3
1950–51 ..	12 8 0	2 18 5	15 9 10	3 12 0	260.0

§ 3. Notes.

1. **General.**—Brief historical notes relating to the circulation and issue of notes in Australia are given in Official Year Book No. 37, pages 561 and 562. The issue of notes intended for circulation as money by any person, bank or State other than by the Commonwealth Bank is prohibited.

2. **The Australian Note Issue.**—(i) *General.* Notes in circulation in Australia are issued by the Commonwealth Bank through the Note Issue Department. The Bank is authorized to issue Australian notes in denominations of 5s., 10s., £1, £5, £10 and any multiple of £10. The Commonwealth Bank is not required to hold a specific reserve in gold against the note issue, but the assets of the Note Issue Department must be held or invested in gold, on deposit with any bank or in securities of the Government of the United Kingdom, the Commonwealth or a State. All profits of the Note Issue Department, with the exception of an amount not exceeding £500,000 each year which may be paid to the other departments or divisions of the Commonwealth Bank, are paid to the Commonwealth Consolidated Revenue Fund.

Australian notes are legal tender to any amount within Australia and have been issued in denominations of 10s., £1, £5, £10, £20, £50, £100 and £1,000.

(ii) *Australian Notes in Circulation.* Particulars of the average values of notes in circulation for the years 1938–39 and 1946–47 to 1950–51 are given in the following table :—

AUSTRALIAN NOTE ISSUE.

(£'000.)

Denomination.	Average of monthly statements for year—					
	1938–39.	1946–47.	1947–48.	1948–49.	1949–50.	1950–51.
10s.	4,141	7,912	8,268	8,309	8,496	8,919
£1	21,124	68,161	65,356	64,710	65,695	67,841
£5	11,718	78,814	77,663	81,170	90,561	106,063
£10	5,126	44,004	46,216	49,438	57,871	70,671
£20	111	9	8	8	8	8
£50	1,259	103	85	76	69	65
£100.. ..	2,238	183	163	139	81	69
£1,000 ..	2,855	453	547	505	220	447
Held by Banks	15,454	18,895	22,296	24,831	27,895	32,478
Held by Public	33,118	180,744	176,010	179,524	195,106	221,605
Total ..	48,572	199,639	198,306	204,355	223,001	254,083

(iii) *Commonwealth Bank—Note Issue Department.* The following statement shows particulars of liabilities and assets of the Note Issue Department of the Commonwealth Bank as at 30th June, 1950 and 1951.

NOTE ISSUE DEPARTMENT : LIABILITIES AND ASSETS, 30th JUNE.

(£'000.)

Liabilities.	1950.	1951.	Assets.	1950.	1951.
Notes on Issue(*a*) ..	231,270	275,221	Gold and Balances held abroad (including money at short call) ..	80,409	135,553
Special Reserve—Premium on gold sold	4,755	4,755	Government Securities (including Commonwealth Treasury Bills)	157,847	146,719
Other Liabilities(*a*) ..	2,362	2,364	Other Assets ..	131	68
Total Liabilities ..	238,387	282,340	Total Assets ..	238,387	282,340

(*a*) Notes of a denomination not exceeding one pound which have been on issue for more than twenty years, and notes of a denomination exceeding one pound which have been on issue for more than 40 years are not included in the item "Notes on Issue" but are included in the item "Other Liabilities".

All the net profits of the Note Issue Department, except £2,000,000 paid between 1926 and 1933 to the capital account of the Rural Credits Department, £1,200,000 paid between 1943 and 1951 to the capital of the Mortgage Bank Department and an amount not exceeding £500,000 each year that may be paid to the other departments or division of the Bank from 1951, are paid to the Commonwealth Treasury. In 1949–50 the net profits of the Note Issue Department amounted to £4,333,000 of which £4,183,000 was paid to the Commonwealth Treasury and £150,000 to the capital account of the Mortgage Bank Department. In 1950–51 the net profits amounted to £3,544,000 of which £3,394,000 was paid to the Commonwealth Treasury and £150,000 to the capital account of the Mortgage Bank Department.

§ 4. Legal Tender Extant.

Accurate information regarding the amount of legal tender in circulation is not available, but the following table provides an estimate of the amount of legal tender extant about the middle of the years 1939 and 1947 to 1951.

ESTIMATED LEGAL TENDER EXTANT : AUSTRALIA.

(£'000.)

Particulars.	1939. (a)	1947.	1948.	1949.	1950.	1951.
Australian Notes(b)—						
Held by Banks	14,829	19,037	22,766	23,744	28,068	35,130
Held by Public	32,701	183,643	173,839	189,111	203,245	240,140
Coin(c)—						
Gold(d)—Held by Banks(e)	79	81	82	86	91	95
Held by Public	..	..	..	..	..	..
Silver—Held by Banks(e)	2,508	5,168	6,720	6,803	6,551	5,889
Held by Public ..	6,830	21,058	22,236	22,712	23,013	24,106
Bronze—Held by Banks(e)	132	169	162	143	175	161
Held by Public	521	1,260	1,371	1,556	1,674	1,896
Total	57,600	230,416	227,176	244,155	262,817	307,417

(a) Prior to 1947 withdrawals of coin were negligible and no allowance has been made for coin withdrawn in the estimates for the year 1939. (b) Last Monday in June, in 1939. Last Wednesday in June thereafter. (c) *See* paragraph below. No allowance has been made for coin lost or destroyed which, during the war years, may have been considerable. (d) Value—one sovereign equals £1. (e) At 30th June.

The figures shown above for silver coin represent the net issues of Australian silver coin less the excess of exports of Australian coins over the reimports of Australian coins. The amount of British coin in circulation in Australia is negligible, and, as it is not possible to ascertain accurately its volume, no allowance has been made for it. The figures shown for bronze coins refer to the total issues of Australian coin, the small amount of British coin in circulation being disregarded.

B. BANKING.

§ 1. Cheque-Paying Banks.

1. **Banking Legislation.**—(i) *Commonwealth Legislation.* Under Section 51 of the Commonwealth Constitution the Commonwealth Parliament has power to legislate with respect to " Banking, other than State banking, also State banking extending beyond the limits of the State concerned, the incorporation of banks, and the issue of paper money ". The principal Commonwealth Acts at present in force relating to Banking are—

(a) The Commonwealth Bank Act 1945–1951 which replaced the Commonwealth Bank Act 1911–1943, and provides for the constitution and management of the Commonwealth Bank and Commonwealth Savings Bank and the management of the Australian note issue ; and

(b) The Banking Act 1945, which provides for the regulation of banking and for the protection of the currency and the public credit of the Commonwealth.

The Banking Act 1945 was assented to on 3rd August, 1945, and came into operation on 21st August, 1945. It applies to all banks, except State Banks, operating in Australia or Territories of the Commonwealth. The objects of the Act are :—(a) To provide a legal framework, uniform throughout Australia, for regulating the banking system; (*b*) to safeguard depositors of the banks from loss; (*c*) to provide for the co-ordination of banking policy under the direction of the Commonwealth Bank; (*d*) to control the volume of credit in circulation and bank interest rates; (*e*) to mobilize and to provide machinery for the control of the foreign exchange and gold resources of the Australian economy. A summary of the main provisions of the Act is given in Official Year Book No. 37, page 565.

The Banking Act 1947 which was assented to on 27th November, 1947, provided for the acquisition by the Commonwealth Bank of the Australian business and assets of the private banks operating in Australia, and for the prohibition of private banks from carrying on banking business in Australia. The Act did not apply to State banks or savings banks. For a summary of the main provisions of the Act *see* Official Year Book No. 37, pages 566 and 567. The validity of this Act was challenged in the High Court by the private banks and the States of Victoria, South Australia and Western Australia, and, in a majority judgment delivered on 11th August, 1948, the Court held that certain vital sections were invalid. An appeal to the Privy Council against part of this judgment was dismissed and the Act was repealed by the Commonwealth Bank Act 1951.

(ii) *State Legislation.* State banking legislation relates to the incorporation of banks and the constitution and management of State banks. The Acts under which the various banks are incorporated differ. While some of the older banks were incorporated by special Act or Charter, e.g., the Bank of New South Wales by Act of Council 1817, The Bank of Australasia by Royal Charter, The Bank of Adelaide by Act of the South Australian Parliament, and the Bank of New Zealand by Act of the General Assembly of New Zealand, most of the banks are incorporated under a Companies Act of the States or the United Kingdom. This is also the case with those banks which were reconstructed after the crisis of 1893. State banks constituted under State Acts transacting general banking business are the Rural Bank of New South Wales, The State Bank of South Australia and The Rural and Industries Bank of Western Australia.

2. **Royal Commission on Monetary and Banking Systems.**—A Royal Commission was appointed by the Commonwealth Government in November, 1935 to inquire into the monetary and banking systems in operation in Australia and to report whether any, and if so what, alterations were desirable in the interests of the people of Australia as a whole, and the manner in which any such alterations should be effected. The Commission presented its report on 15th July, 1937, and a summary of the recommendations appears in Official Year Book No. 31, p. 1010.

3. **Presentation of Banking Statistics.**—Because of the different purposes they serve in the Australian financial system Australian cheque-paying banks have been divided for statistical purposes into three groups and a separate series is presented for each of these groups. These groups are:—

(*a*) *The Commonwealth Bank.* This is the Central Bank. It also transacts general banking business through a General Banking Division and provides special banking facilities through the Rural Credits, Mortgage Bank and Industrial Finance Departments. Statistics of the Central Banking Business (including the Note Issue Department) and the General Banking Division and Rural Credits, Mortgage Bank and Industrial Finance Departments are presented in separate series.

(*b*) *Private Trading Banks.* This group was formerly known as the Nine Trading Banks but the number of banks included has been reduced to seven by amalgamations. With the General Banking Division of the Commonwealth Bank, these banks provide the major part of the general banking facilities in Australia. The banks included in this group are—The Bank of New South Wales, The Commercial Banking Company of Sydney Ltd., The National Bank of Australasia Ltd. (which has absorbed the Queensland National Bank Ltd.), The Commercial Bank of Australia Ltd., The Bank of Adelaide, The Australia and New Zealand Bank Ltd. (an amalgamation of The Bank of Australasia Ltd. and The Union Bank of Australia Ltd.), and The English, Scottish and Australian Bank Ltd.

(c) *Other Banks.* This group consists of (i) three State Government Banks—The Rural Bank of New South Wales, The State Bank of South Australia and The Rural and Industries Bank of Western Australia which, in their general banking business, specialize mainly in financing rural industries, (ii) two joint stock banks—The Ballarat Banking Co. Ltd. and The Brisbane Permanent Building and Banking Co. Ltd. which have specialized business in two districts only, and (iii) branches of three oversea banks—The Bank of New Zealand, Comptoir National d'Escompte de Paris and the Bank of China which transact limited business in Australia and are mainly concerned with financing trade, etc., between Australia and oversea countries.

In addition to the series mentioned above, a series for all cheque-paying banks is presented. This series covers the General Banking Division and Rural Credits, Mortgage Bank and Industrial Finance Departments of the Commonwealth Bank, the Private Trading Banks and the other cheque-paying banks included in the third group.

Unless otherwise stated, the statistics presented are averages of weekly returns. Averages of liabilities and assets are the averages of the liabilities and assets of the banks on the several weekly balance days during the period concerned. Averages of bank clearings and debits to customers' accounts are the averages of transactions for weeks ended on the balance days during the period.

Until December, 1946 these balance days were the Mondays of each week. From January, 1947 Wednesday became the weekly balance day.

Under the Banking Act 1945 the returns furnished by cheque-paying banks were slightly modified and the figures quoted in the following pages may not in all cases be strictly comparable with those quoted in earlier issues of the Official Year Book. The main changes relate to the classification of assets and liabilities. Under the Commonwealth Bank Act 1945 the Commonwealth Bank was reorganized and figures quoted for this Bank are not comparable with those published in issues of the Official Year Book prior to No. 37.

4. **Banks Transacting Business in Australia.**—(i) *Number of Branches.* At 30th June, 1951 the 17 banks operating in Australia transacted all classes of banking business at 3,000 branches and 1,045 agencies. The Commonwealth Bank of Australia and the Private Trading Banks have branches throughout the Commonwealth. The Rural Bank of New South Wales, State Bank of South Australia and Rural and Industries Bank of Western Australia, being State Government banks specializing mainly in financing rural industries, have branches only in those States. Two banks, the Ballarat Banking Company Ltd. and the Brisbane Permanent Building and Banking Co. Ltd., transact business only in Ballarat and Brisbane respectively. The remaining three banks are branches of oversea banks.

CHEQUE-PAYING BANKS: NUMBER OF BRANCHES(a) AT 30th JUNE, 1951.

Banks.	New South Wales.	Victoria.	Q'land.	South Aust.	West. Aust.	Tasmania.	Nor. Terr.	Aust. Cap. Terr.	Total.
Commonwealth Bank of Australia	246	45	62	15	45	6	2	1	422
Private Trading Banks ..	834	713	405	219	185	56	5	5	2,422
Other Cheque-paying Banks	97	4	1	23	31	..	..	..	156
All Cheque-paying Banks—									
Metropolitan areas ..	430	326	86	70	88	14	..	..	1,014
Elsewhere	747	436	382	187	173	48	7	6	1,986
Total	1,177	762	468	257	261	62	7	6	3,000

(a) Includes Head Offices. Excludes agencies, 1,045.

(ii) *Capital Resources, etc.* The paid-up capital of cheque-paying banks (excluding the three oversea banks, the Bank of New Zealand, the Bank of China and the Comptoir National d'Escompte de Paris), together with their reserve funds, their profits and the amount of their last dividends are shown in the following table. The information relates to the balance-sheet last preceding 31st October, 1951. All amounts are expressed in Australian currency.

CHEQUE-PAYING BANKS: CAPITAL RESOURCES, 1950-51.

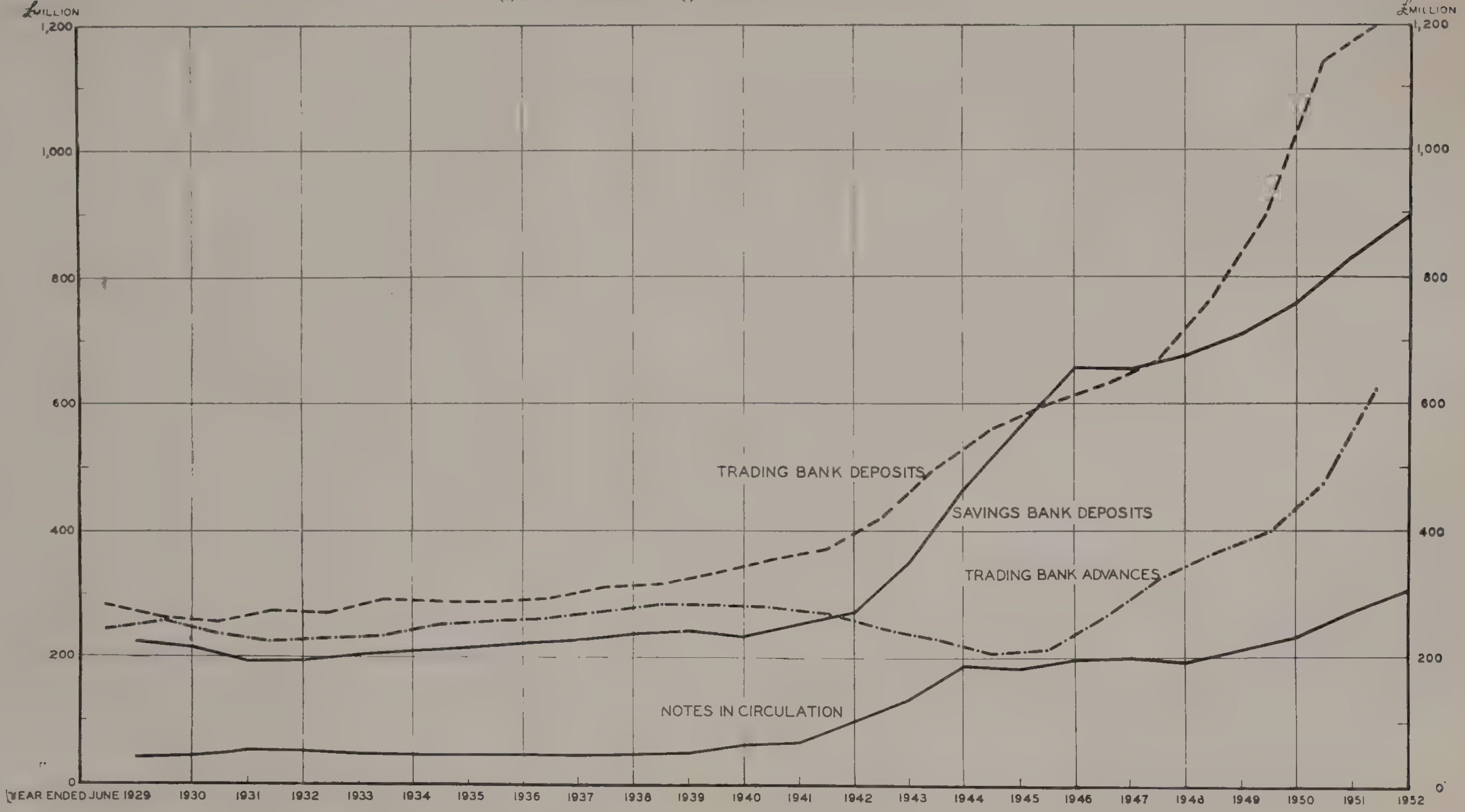
(£'000.)

Bank.	Paid-up Capital.	Reserves.	Balance of Profit and Loss Account. (*a*)	Total Shareholders' Funds.	Reserve Liability of Shareholders. (*b*)	Net Profit for year.	Net Dividends. (*c*)
Commonwealth Bank of Australia—							
Central Banking Business ..	4,000	1,768	..	5,768	..	1,282	..
Note Issue Department ..	..	(*d*)4,755	..	4,755	..	3,544	..
General Banking Division ..	4,000	1,180	..	5,180	..	445	..
Rural Credits Department ..	2,000	607	..	2,607	..	85	..
Mortgage Bank Department ..	4,000	218	..	4,218	..	47	..
Industrial Finance Department	4,000	790	..	4,790	..	287	..
Total	18,000	9,318	..	27,318	..	5,690	..
Private Trading Banks—							
The Bank of Adelaide ..	1,250	1,250	127	2,627	1,250	108	100
The Bank of Australasia Ltd. ..	5,648	3,137	1,009	9,794	5,648	655	(*e*) 183
Bank of New South Wales ..	8,780	6,400	819	15,999	8,780	1,027	702
The Commercial Bank of Australia Ltd.	4,117	2,250	300	6,667	..	336	285
The Commercial Banking Co. of Sydney Ltd.	4,739	4,600	398	9,737	4,739	452	379
The English, Scottish and Australian Bank Ltd.	3,765	2,510	550	6,825	2,510	318	198
The National Bank of Australasia Ltd.(*f*)	6,726	5,000	494	12,220	1,800	609	471
The Queensland National Bank Ltd. (in voluntary liquidation) (*f*)	..	..	94	94	..	15	..
The Union Bank of Australia Ltd.	5,020	4,079	1,277	10,376	10,040	1,034	(*e*) 192
Total	40,045	29,226	5,068	74,339	34,767	4,554	(*g*)2,708
Other Cheque-paying Banks—							
The Ballarat Banking Co. Ltd...	159	159	13	331	141	16	11
The Brisbane Permanent Building and Banking Co. Ltd. ..	1,000	275	57	1,332	..	70	67
The Rural Bank of New South Wales	*h* 17,984	(*i*)7,155	..	25,139	..	82	..
State Bank of South Australia ..	1,268	767	..	2,035	..	47	..
Rural and Industries Bank of Western Australia	6,730	106	..	6,836	..	20	..
Total	27,141	8,462	70	35,673	141	235	78
Grand Total	85,186	47,006	5,138	137,330	34,908	10,479	(*g*)2,786

(*a*) Includes dividends declared but not paid at date of balance-sheet. (*b*) Includes uncalled capital. (*c*) Dividends paid and payable out of profits earned during 1950–51. (*d*) Special Reserve—Premium on gold sold. (*e*) These dividends are for the following periods—The Bank of Australasia Ltd., 12th October, 1950 to 24th May, 1951 (225 days) and The Union Bank of Australia Ltd., 1st September, 1950 to 24th May, 1951 (266 days). On 1st October, 1951 these two banks were amalgamated to form the Australia and New Zealand Bank Ltd. and this bank paid a final dividend of £198,000 for the period 25th May, 1951 to 30th September, 1951 (129 days). (*f*) The business of the Queensland National Bank Ltd., was taken over by the National Bank of Australasia Ltd., in January, 1948. (*g*) Includes dividend paid by the Australia and New Zealand Bank Ltd., 198,000. (*h*) Total stocks and debentures issued including liability in respect of deposits taken over by the Commonwealth Bank in December, 1931. (*i*) Includes £4,600,542. Special Reserve Account established under Section 12 (2) of Rural Bank of New South Wales Act 1932.

BANK DEPOSITS AND ADVANCES AND NOTES IN CIRCULATION : AUSTRALIA, 1929 TO 1952

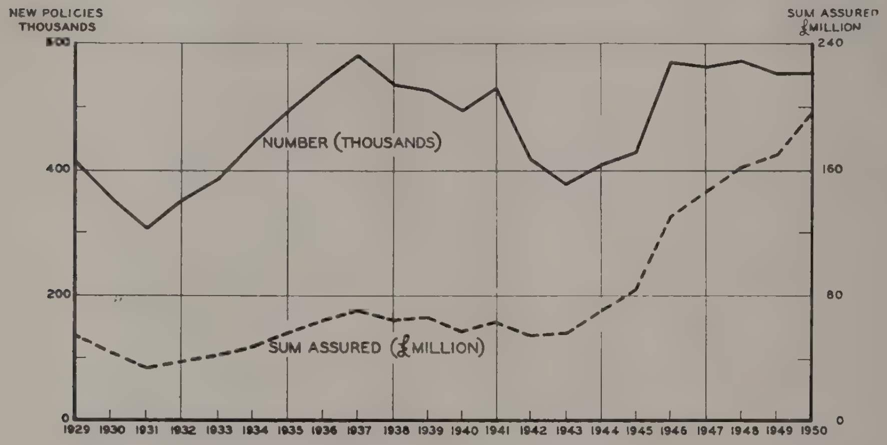
(a) PRIVATE TRADING BANKS (1) TOTAL DEPOSITS (2) ADVANCES
(b) SAVINGS BANK DEPOSITS (c) AUSTRALIAN NOTES IN CIRCULATION



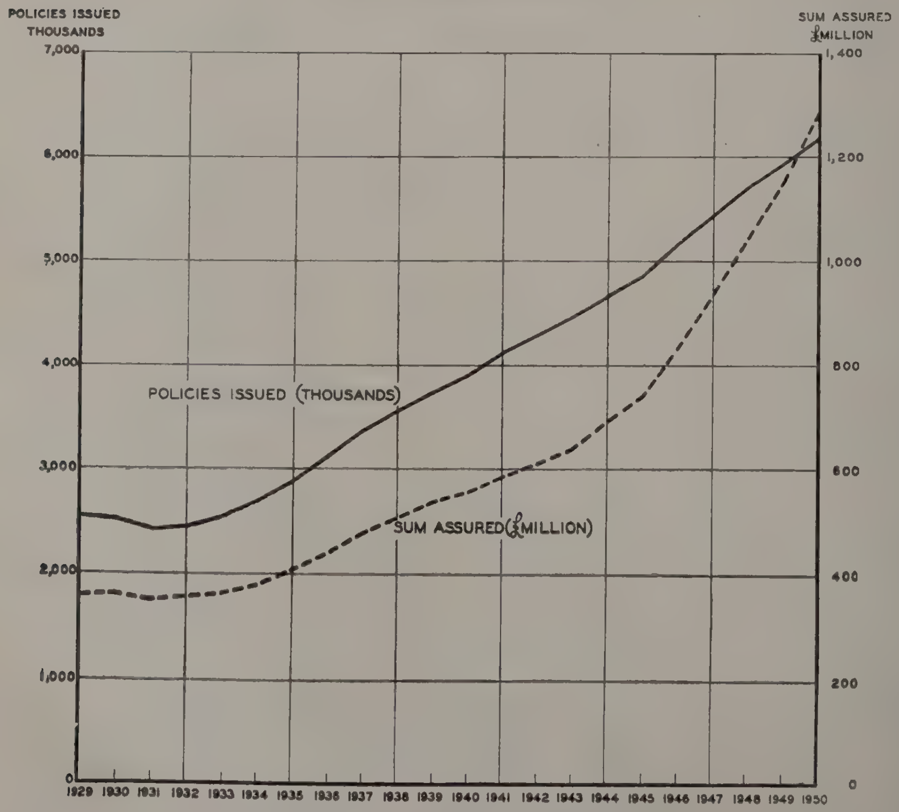
LIFE ASSURANCE: AUSTRALIA, 1929 TO 1950

POLICIES ISSUED AND SUM ASSURED

NEW POLICIES ISSUED



TOTAL EXISTING BUSINESS



5. **Commonwealth Bank.**—(i) *General.* An account of the progress and development of the Commonwealth Bank is given in earlier issues of the Official Year Book (*see* No. 37, pages 570 to 573). The general functions of the Bank are set out in section 8 of the Commonwealth Bank Act 1945–1951 which states—

> "8. It shall be the duty of the Commonwealth Bank, within the limits of its powers, to pursue a monetary and banking policy directed to the greatest advantage of the people of Australia, and to exercise its powers under this Act and the Banking Act 1945 in such a manner as, in the opinion of the Bank, will best contribute to :—
>
> (*a*) the stability of the currency of Australia ; (*b*) the maintenance of full employment in Australia ; and (*c*) the economic prosperity and welfare of the people of Australia."

In addition to its functions as a Central Bank, the Bank controls the Australian note issue through a Note Issue Department and provides general banking facilities through a General Banking Division and special services through the Rural Credits Department, Mortgage Bank Department and Industrial Finance Department. The Commonwealth Savings Bank, a separate institution providing for small depositors, is controlled by the Commonwealth Bank Board and is operated in conjunction with the Commonwealth Bank.

(ii) *Management.* Under the Commonwealth Bank Act 1911 the Bank was managed by a Governor. From 1924 to August, 1945 it was controlled by a Board of Directors. Under the Commonwealth Bank Act 1945 control was vested in a Governor, assisted by an Advisory Council. Since 21st August, 1951, under the Commonwealth Bank Act 1951, the policy of the Commonwealth Bank and the Commonwealth Savings Bank has been determined by the Commonwealth Bank Board consisting of the Governor (Chairman), the Deputy Governor, the Secretary, Department of the Treasury and seven other members appointed by the Governor-General. The Bank is managed by the Governor who shall act in accordance with the policy of the Bank and with any directions of the Board. The Bank is required to inform the Government of the monetary and banking policy of the Bank. In the event of a disagreement between the Government and the Bank as to whether the monetary and banking policy of the Bank is directed to the greatest advantage of the people of Australia, the Governor-General acting with the advice of the Executive Council may determine the policy to be adopted by the Bank.

(iii) *Central Banking Business.* Under the powers it possessed under the Commonwealth Bank Act 1911–1943 and under its war-time powers under the National Security Regulations, the Commonwealth Bank had gradually assumed the functions of a Central Bank. Part III. of the Commonwealth Bank Act 1945 formally constituted the Commonwealth Bank as a Central Bank and granted the Bank the necessary powers to carry on the business of a Central Bank. The capital for the Central Banking Business is £4,000,000 and such other sums as are transferred from the Reserve Fund. Until 30th June, 1951 the profits of the Central Banking Business were distributed as follows :—(*a*) One-quarter to be placed to the credit of the Commonwealth Bank Reserve Fund ; (*b*) one-quarter to be paid to the Mortgage Bank Department Capital Account ; (*c*) one-half to be paid to the National Debt Sinking Fund. When the capital of the Mortgage Bank Department has reached £4,000,000 the share of profits payable to that department will be credited to the Commonwealth Bank Reserve Fund. By the Commonwealth Bank Act 1951 the distribution of profits was altered as follows :—(*a*) One-half to be paid to the National Debt Sinking Fund ; (*b*) for a period of five years an amount not exceeding £500,000 per annum may be paid to the capital of the various sections of the Bank, this amount to be distributed as follows—General Banking Division, Mortgage Bank Department and Industrial Finance Department each two-sevenths and the Rural Credits Department one-seventh ; and (*c*) the balance to be paid to the Commonwealth Bank Reserve Fund.

(iv) *Note Issue Department.* This department was established in 1920 when the control of the Australian note issue was transferred from the Commonwealth Treasury to the Commonwealth Bank. The Bank may, through this department, issue, re-issue and cancel Australian notes. Until 30th June, 1951, all profits of this Department, with the exception of £2,000,000 paid to the capital account of the Rural Credits Department and £1,200,000 paid to the capital account of the Mortgage Bank Department, were paid to the Commonwealth Consolidated Revenue. Under the Commonwealth Bank Act 1951 provision is made for an amount, not exceeding £500,000 per annum for five years, to be paid to the capital accounts of the General Banking Division and the Rural Credits, Industrial Finance and Mortgage Bank Departments. This amount is payable only if a similar amount is paid from the profits of the Central Banking Business and is to be distributed to the various sections in the same proportions as the amount payable from the profits of the Central Banking Business. The balance of the profits is to be paid to the Commonwealth Consolidated Revenue Fund.

(v) *General Banking Division.* Under the Commonwealth Bank Act 1911–1943 no provision was made for the separation of the general banking business of the bank from its central banking business. Under the Commonwealth Bank Act 1945 the General Banking Division was set up to carry on the general banking business of the Bank. The accounts and transactions of this division are kept separate and distinct from the other accounts of the Bank. The capital of the General Banking Division is £4,000,000, and such other sums as are transferred from the General Banking Division Reserve Fund, or from the profits of the Central Banking Business and the Note Issue Department. The profits of the General Banking Division are distributed as follows :—(*a*) one-half is credited to the General Banking Division Reserve Fund, and (*b*) one-half is paid to the National Debt Sinking Fund.

(vi) *Rural Credits Department.* The Rural Credits Department was established in 1925 for the purpose of making short-term credit available for the orderly marketing of primary produce. The Bank may, through this department, make advances, upon the security of primary produce placed under the legal control of the Bank or other security associated with the production or marketing of primary produce, to co-operative associations or marketing boards formed under the laws of the Commonwealth or of a State or Territory of the Commonwealth or other bodies specified by proclamation. The period of the advance shall not be more than one year. The capital of the Rural Credits Department is £2,000,000 and such amounts as are transferred from the profits of the Central Banking Business and the Note Issue Department. Profits are distributed as follows :—(*a*) one-half is credited to the Rural Credits Department Reserve Fund, and (*b*) one-half is credited to the Rural Credits Department Development Fund for the promotion of primary production.

(vii) *Mortgage Bank Department.* The Mortgage Bank Department was established in 1943 for the purpose of making long-term loans to primary producers. Through this department the Bank may make a loan to any person engaged in farming, agricultural, horticultural, pastoral or grazing operations or other form of primary production, upon the security of a mortgage to the Bank of an estate or interest in land in the Commonwealth owned by the borrower. The term of the loan shall not be less than five years nor more than forty-one years. The capital of the department is limited to £4,000,000 plus any amount transferred from the profits of the Central Banking Business and the Note Issue Department. Profits are credited to the Mortgage Bank Department Reserve Fund.

(viii) *Industrial Finance Department.* The functions of the Industrial Finance Department established in January, 1946 are :—(*a*) to provide finance for the establishment and development of industrial undertakings ; (*b*) to assist in the establishment and development of industrial undertakings ; and (*c*) to provide advice on the operations of industrial undertakings with a view to promoting the efficient organization and conduct thereof. To exercise these functions the Bank may, through the Industrial Finance Department, lend money and purchase and sell shares or securities in an industrial undertaking. The capital of this department is £4,000,000 plus any amount transferred from the profits of the Central Banking Business and Note Issue Department. The Treasurer, the Bank and the Savings Bank may advance money to the Industrial Finance Department. The amount that may be advanced by the Bank is limited to £1,000,000. The profits of the department are credited to the Industrial Finance Department Reserve Fund.

(ix) *Housing Loans.* Provision is made for the Bank, through the General Banking Division, to make loans to individuals or building societies for the erection or purchase of homes or for the discharge of mortgages on homes. These loans must be made at the lowest possible rate of interest. Loans to individuals are to be on *crédit foncier* terms, to be secured by first mortgage on an estate or interest in land owned by the borrower and to be repaid in periods of not less than 5 years nor more than 35 years. Loans to building societies are to be made on such security and on such terms and conditions as the Bank determines.

(x) *Liabilities and Assets—All Departments.* Liabilities and assets of each department of the Commonwealth Bank at 30th June, 1951 are shown in the following table. The Commonwealth Savings Bank, which is operated as a separate institution, is not included (*see* § 2, para. 8 (iv) following) :—

COMMONWEALTH BANK : LIABILITIES AND ASSETS, 30th JUNE, 1951.

(£'000.)

Item.	Central Banking Business.	Note Issue Department.	General Banking Division.	Rural Credits Department.	Mortgage Bank Department.	Industrial Finance Department.	Total. (*a*)
LIABILITIES.							
Capital	4,000	..	4,000	2,000	4,000	4,000	18,000
Reserve Funds	1,768	..	1,180	607	218	790	4,563
Special Reserve—Premium on gold sold	..	4,755	..	..	..	..	4,755
Development Fund	..	..	..	47	..	..	47
Notes on Issue	..	275,221	..	..	..	..	275,221
Deposits, bills payable and other liabilities—							
Special accounts of Trading Banks	552,320	..	..	..	..	..	552,320
Other deposits of Trading Banks	28,959	..	..	..	..	..	28,959
Other (including provision for contingencies)	286,410	2,364	152,134	10,866	439	19,731	453,454
Total Liabilities	873,457	282,340	157,314	13,520	4,657	24,521	1,337,319
ASSETS.							
Gold and balances held abroad (including money at short call)	578,896	135,553	2,727	..	..	..	717,176
Australian notes and coin and cash balances	2,939	..	4,967	(*b*)2,268	(*b*) 157	..	7,906
Cheques and bills of other banks	6,873	..	883	..	..	..	7,756
Commonwealth Government securities (including Commonwealth Treasury Bills)	110,372	146,719	49,614	..	100	1,300	308,105
Securities of other Governments, and of local and semi-governmental authorities	94,135	..	..	..	..	..	94,135
Bills receivable and remittances in transit	1,366	..	22,398	..	..	..	23,764
Bank premises at cost less amounts written off	225	..	1,478	..	..	..	1,703
Loans, advances, bills discounted, and other assets (after deducting debts considered bad or doubtful)	78,651	68	75,247	11,252	4,400	23,221	176,774
Total Assets	873,457	282,340	157,314	13,520	4,657	24,521	1,337,319

(*a*) Inter-departmental accounts totalling £18,490,000 have been offset in the combined figures. (*b*) Cash balances.

(xi) *Profits.* Net profits of the various departments of the Commonwealth Bank for the years 1938–39 and 1941–42 to 1950–51 were as follows :—

COMMONWEALTH BANK : NET PROFITS.

(£'000.)

Year ended 30th June—	General Bank Department.	Central Banking Business. (*a*)	Note Issue Department.	General Banking Division. (*a*)	Rural Credits Department.	Mortgage Bank Department. (*b*)	Industrial Finance Department. (*c*)	Total.
1939	356	..	767	..	32	..	..	1,155
1942	527	..	1,658	..	47	..	..	2,232
1943	873	..	2,248	..	44	..	..	3,165
1944	985	..	2,743	..	38	−13	..	3,753
1945	957	..	3,098	..	37	16	..	4,108
1946	..	670	3,090	334	33	25	6	4,158
1947	..	700	3,942	350	37	30	24	5,083
1948	..	901	4,237	377	34	34	57	5,640
1949	..	975	4,610	419	39	36	165	6,244
1950	..	970	4,333	436	95	42	250	6,126
1951	..	1,282	3,544	445	85	47	287	5,690

(*a*) Created 21st August, 1945. Previously combined under General Bank Department. (*b*) Commenced business 27th September, 1943. (*c*) Commenced business 2nd January, 1946.

NOTE.—Minus sign (−) indicates a loss.

(xii) *Central Banking Business—Average Liabilities and Assets.* The average liabilities and assets of the Central Banking Business and Note Issue Department of the Commonwealth Bank for the years ended June, 1946 to 1951 are shown in the two tables which follow :—

COMMONWEALTH BANK : CENTRAL BANKING BUSINESS (INCLUDING NOTE ISSUE DEPARTMENT)—AVERAGE LIABILITIES.

(£'000.)

Year ended June—	Capital and Reserve Funds.	Notes on Issue.	Special Accounts of Trading Banks.	Other Deposits of Trading Banks.	Other Liabilities.	Total Liabilities.
1946 (*a*)	10,537	193,813	241,842	26,864	144,385	617,441
1947	9,782	199,402	266,951	24,063	122,101	622,299
1948	9,437	198,090	263,688	28,018	142,014	641,247
1949	9,653	203,561	323,930	29,764	174,647	741,555
1950	9,898	222,198	379,632	30,661	200,345	842,734
1951	10,127	251,770	503,248	34,696	238,230	1,038,071

(*a*) Ten months ended June, 1946.

COMMONWEALTH BANK : CENTRAL BANKING BUSINESS (INCLUDING NOTE ISSUE DEPARTMENT)—AVERAGE ASSETS.

(£'000.)

Year ended June—	Gold and Balances held abroad.	Australian Coin.	Cheques and Bills of Other Banks.	Government and Other Securities (including Commonwealth Treasury Bills.)	Bills Receivable and Remittances in Transit.	Other Assets.	Total Assets.
1946 (*a*)	181,594	3,266	2,294	418,266	1,833	10,188	617,441
1947	217,642	3,365	2,603	392,217	320	6,152	622,299
1948	196,694	5,186	3,099	419,857	80	16,331	641,247
1949	336,175	4,040	3,732	356,260	47	41,301	741,555
1950	434,018	3,795	4,102	348,965	81	51,773	842,734
1951	596,276	3,370	5,791	366,570	105	65,959	1,038,071

(*a*) Ten months ended June, 1946.

(xiii) *General Banking Division and Rural Credits, Mortgage Bank and Industrial Finance Departments—Average Liabilities and Assets within Australia.* The average liabilities and assets within Australia of the General Banking Division and Rural Credits, Mortgage Bank and Industrial Finance Departments of the Commonwealth Bank for the years ended June, 1946 to 1951 are shown in the following tables :—

COMMONWEALTH BANK : GENERAL BANKING DIVISION AND RURAL CREDITS, MORTGAGE BANK AND INDUSTRIAL FINANCE DEPARTMENTS—AVERAGE LIABILITIES WITHIN AUSTRALIA.(*a*)

(£'000.)

Year ended June—	Interminable Deposits or Deposit Stock.	Deposits.			Notes in Circulation.	Balances due to Other Banks.	Bills payable and all other Liabilities to the Public.	Total Liabilities.
		Not Bearing Interest.	Bearing Interest.	Total.				
1946(*b*)	..	35,775	21,101	56,876	..	341	2,112	59,329
1947	..	41,372	17,574	58,946	..	352	2,279	61,577
1948	..	44,549	13,873	58,422	..	335	3,697	62,454
1949	..	52,346	13,214	65,560	..	5,263	7,972	78,795
1950	..	72,311	14,775	87,086	..	14,282	18,684	120,052
1951	..	93,603	19,405	113,008	..	17,279	19,023	149,310

(*a*) Includes Territories of Papua and New Guinea. (*b*) Ten months ended June, 1946.

COMMONWEALTH BANK : GENERAL BANKING DIVISION AND RURAL CREDITS, MORTGAGE BANK AND INDUSTRIAL FINANCE DEPARTMENTS—AVERAGE ASSETS WITHIN AUSTRALIA.(*a*)

(£'000.)

Year ended June—	Cash and Cash Balances.	Special Account with Commonwealth Bank.	Balances with Other Banks. (*b*)	Australian Public Securities.		Other Securities.	Loans, Advances, and Bills Discounted.	All Other Assets.	Total Assets.
				Treasury Bills.	Other.				
1946(*c*)	7,366	..	195	5,379	35,249	6	20,533	1,459	70,187
1947	7,176	..	230	3,131	36,488	30	25,698	1,690	74,443
1948	7,432	..	280	1,189	32,661	35	33,338	1,793	76,728
1949	6,871	..	399	461	34,461	66	49,230	1,675	93,163
1950	13,974	..	535	1,962	35,353	74	81,669	1,695	135,262
1951	8,401	..	847	24,127	27,100	80	102,426	2,325	165,306

(*a*) Includes Territories of Papua and New Guinea. (*b*) Includes notes, cheques and bills of other banks. (*c*) Ten months ended June, 1946.

6. **Private Trading Banks.**—(i) *Average Liabilities and Assets in Australia.* The average liabilities and assets within Australia of the Private Trading Banks (*see* page 704 for list of banks) for the years ended June, 1939 and 1942 to 1951 are shown in the following tables.

PRIVATE TRADING BANKS : AVERAGE LIABILITIES WITHIN AUSTRALIA.

(£'000.)

Year ended June—	Interminable Deposits or Deposit Stock.	Deposits.			Notes in Circulation.	Balances due to other Banks.	Bills payable and all other Liabilities to the Public.	Total Liabilities.
		Not Bearing Interest.	Bearing Interest.	Total.				
1939	2,644	*a* 118,868	198,793	317,661	167	921	(*b*) 3,005	324,398
1942	2,611	*a* 178,438	199,827	378,265	167	1,112	(*b*) 3,642	385,797
1943	2,597	*a* 233,299	193,357	426,656	167	1,069	(*b*) 4,125	434,614
1944	2,511	*a* 290,988	211,703	502,691	166	1,016	(*b*) 4,485	510,869
1945	1,850	*a* 343,773	224,023	567,796	166	1,083	(*b*) 4,843	575,738
1946(*c*).. ..	1,664	385,953	220,415	606,368	166	1,194	6,338	615,730
1947	889	429,749	206,862	636,611	159	1,748	7,792	647,199
1948	733	471,604	201,892	673,496	158	11,933	8,423	694,743
1949	729	565,140	211,262	776,402	158	32,522	10,576	820,387
1950	729	685,587	224,477	910,064	158	33,227	13,323	957,501
1951	729	896,499	247,727	1,144,226	158	50,259	18,240	1,213,612

(*a*) Includes Other Liabilities. (*b*) Excludes Other Liabilities. (*c*) Includes Territories of Papua and New Guinea for this and following periods.

PRIVATE TRADING BANKS : AVERAGE ASSETS WITHIN AUSTRALIA.

(£'000.)

Year ended June—	Cash and Cash Balances.	Special Account with Commonwealth Bank.	Balances with Other Banks. (*a*)	Australian Public Securities.		Other Securities.	Loans, Advances and Bills Discounted.	All Other Assets.	Total Assets.
				Treasury Bills.	Other.				
1939	33,597	..	3,938	21,533	*b* 20,477	(*c*)	*d* 288,109	(*e*) 9,421	377,075
1942	41,415	16,848	5,899	42,267	*b* 59,640	(*c*)	*d* 273,729	*e* 10,105	449,903
1943	43,322	68,420	6,765	59,443	*b* 62,907	(*c*)	*d* 248,719	(*e*) 9,925	499,501
1944	40,908	139,965	7,334	63,826	*b* 79,961	(*c*)	*d* 232,421	(*e*) 9,787	574,202
1945	38,038	207,992	7,744	60,283	*b* 105,842	(*c*)	*d* 208,719	(*e*) 9,776	638,394
1946(*f*).. ..	38,462	238,098	8,748	59,782	*b* 115,272	(*c*)	*d* 214,401	(*e*) 9,802	684,565
1947	37,927	264,991	10,302	25,831	95,027	164	261,140	14,280	709,662
1948	44,390	262,258	12,254	18,089	65,606	*g* 1,874	329,850	17,154	751,475
1949	48,016	322,670	14,267	22,111	61,455	742	368,582	20,213	858,056
1950	51,960	377,006	17,683	26,502	83,813	536	403,890	18,272	979,662
1951	59,333	500,317	23,761	36,887	90,244	1,126	479,322	18,988	1,209,978

(*a*) Includes notes, cheques and bills of other banks. (*b*) Government and Municipal Securities. (*c*) Included with Loans, Advances and Bills Discounted. (*d*) Includes Other Assets—*see* footnotes (*c*) and (*e*). (*e*) Landed and House Property only. Other assets included with Loans, Advances and Bills Discounted. (*f*) Includes Territories of Papua and New Guinea for this and following periods. (*g*) Includes shares held by National Bank of Australasia Ltd. in Queensland National Bank Ltd. (in voluntary liquidation).

(ii) *Ratios of Assets and Liabilities to Total Deposits.* The following table shows, for the Private Trading Banks, the ratios of certain assets and liabilities to total deposits for the years ended June, 1939 and 1942 to 1951. The ratios are based on the average liabilities and assets for the years shown.

PRIVATE TRADING BANKS : RATIOS OF AVERAGE ASSETS AND LIABILITIES TO AVERAGE TOTAL DEPOSITS.

(Per Cent.)

Year ended June—	Cash and Cash Balances.	Treasury Bills.	Government and Municipal Securities. (a)	Special Account with Commonwealth Bank.	Advances.	Deposits.	
						Not Bearing Interest.	Bearing Interest.
1939	10.6	6.8	6.5	..	90.7	37.4	62.6
1942	11.0	11.2	15.8	4.4	72.4	47.2	52.8
1943	10.2	13.9	14.7	16.0	58.3	54.7	45.3
1944	8.1	12.7	15.9	27.8	46.2	57.9	42.1
1945	6.7	10.6	18.6	36.6	36.8	60.6	39.4
1946	6.3	9.9	19.0	39.3	35.0	63.7	36.3
1947	6.0	4.1	14.9	41.6	41.0	67.5	32.5
1948	6.6	2.7	9.7	38.9	49.0	70.0	30.0
1949	6.2	2.9	7.9	41.6	47.5	72.8	27.2
1950	5.7	2.9	9.2	41.4	44.4	75.3	24.7
1951	5.2	3.2	7.8	43.7	41.9	78.4	21.6

(a) Excludes Treasury Bills.

(iii) *Proportion of Non-Interest Bearing to Total Deposits.* The following table shows, for each State, the proportion of non-interest bearing deposits to total deposits with the Private Trading Banks for each of the years ended June, 1939 and 1942 to 1951. The ratios are based on the average deposits for the years shown.

PRIVATE TRADING BANKS : PROPORTION OF NON-INTEREST BEARING DEPOSITS TO TOTAL DEPOSITS.

(Per Cent.)

Year ended June—	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Nor. Terr.	Aust. Cap. Terr.	Total. (a)
1939	43.5	30.3	45.4	26.1	45.7	36.5	61.1	23.2	37.4
1942	53.8	40.8	51.7	35.3	51.5	45.6	71.3	28.2	47.2
1943	59.4	49.9	60.3	42.3	59.4	52.6	72.3	31.6	54.7
1944	61.6	53.0	64.9	46.0	61.8	55.4	76.6	34.0	57.9
1945	63.8	55.9	67.6	49.2	63.2	57.7	100.0	37.2	60.6
1946	66.1	60.5	69.4	51.4	66.2	62.6	77.2	42.4	63.7
1947	69.7	65.6	71.4	55.7	69.8	65.2	77.8	47.6	67.5
1948	72.3	68.5	73.3	58.8	73.0	66.3	81.0	53.3	70.0
1949	75.2	71.0	75.7	63.0	75.9	67.5	81.3	58.4	72.8
1950	77.9	73.7	77.9	64.9	77.9	70.1	83.9	68.7	75.3
1951	81.3	75.8	80.9	69.8	80.5	74.6	83.1	76.2	78.4

(a) Includes Papua and New Guinea for 1946 and following periods.

(iv) *Ratio of Advances to Total Deposits.* The ratio of advances to total deposits, for each State for the years ended June, 1939 and 1942 to 1951, is shown in the following table. The ratios are based on the averages of deposits and advances for the years shown.

PRIVATE TRADING BANKS : RATIO OF ADVANCES TO TOTAL DEPOSITS.

(Per Cent.)

Year ended June—	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Nor. Terr.	Aust. Cap. Terr.	Total. (a)
1939	104.5	71.6	99.2	77.6	155.5	57.0	24.5	37.7	90.7
1942	76.9	62.2	88.4	56.3	116.8	45.9	14.0	30.4	72.4
1943	62.4	54.8	58.5	43.9	87.7	32.5	7.9	22.2	58.3
1944	46.7	50.3	36.5	38.8	64.9	24.4	45.1	10.0	46.2
1945	38.6	36.9	30.3	33.7	54.6	21.0	92.0	18.2	36.8
1946	37.6	32.6	31.0	33.6	53.7	20.7	11.5	18.1	35.0
1947	43.1	39.4	37.8	38.4	55.5	29.2	16.2	21.1	41.0
1948	53.3	48.2	46.3	37.2	52.1	41.0	31.9	23.6	49.0
1949	50.8	50.3	44.9	29.1	42.0	50.9	55.1	25.5	47.5
1950	44.5	47.6	46.4	29.6	39.4	48.5	35.0	22.1	44.4
1951	41.9	43.0	49.0	28.3	36.4	44.0	30.5	21.3	41.9

(a) Includes Papua and New Guinea for 1946 and following periods.

7. **Other Cheque-paying Banks.**—*Average Liabilities and Assets within Australia.* The average liabilities and assets within Australia of " other cheque-paying banks " (*see* page 705 for list of these banks) for the years ended June, 1946 to 1951 are shown in the following tables.

OTHER CHEQUE-PAYING BANKS : AVERAGE LIABILITIES WITHIN AUSTRALIA.

(£'000.)

Year ended June—	Interminable Deposits or Deposit Stock. (a)	Deposits.			Notes in Circulation.	Balances due to other Banks.	Bills payable and all other Liabilities to the Public.	Total Liabilities.
		Not bearing Interest.	Bearing Interest.	Total.				
1946(b).. ..	12,583	7,741	5,013	12,754	..	74	504	25,915
1947	12,322	9,975	5,079	15,054	..	93	295	27,764
1948(c).. ..	16,476	12,522	5,434	17,956	..	411	456	35,299
1949	20,559	18,385	7,336	25,721	..	357	776	47,413
1950	20,206	23,025	10,080	33,105	..	174	1,245	54,730
1951	20,056	31,947	12,421	44,368	..	194	1,594	66,212

(a) Inscribed stock and debentures, Rural Bank of New South Wales and State Bank of South Australia. (b) Ten months ended June, 1946. (c) From March, 1948, the General Bank Department of the Rural Bank of New South Wales has been included. Previously only the Rural Bank Department was included.

OTHER CHEQUE-PAYING BANKS : AVERAGE ASSETS WITHIN AUSTRALIA.

(£'000.)

Year ended June—	Cash and Cash Balances.	Special Account with Commonwealth Bank.	Balances with other Banks. (a)	Australian Public Securities.		Other Securities.	Loans, Advances and Bills discounted.	All other Assets. (b)	Total Assets.
				Treasury Bills.	Other.				
1946 (c) ..	1,848	1,919	2,388	965	7,772	218	16,795	1,259	33,164
1947	2,518	1,960	1,638	730	8,478	265	22,868	2,341	40,798
1948 (d) ..	3,128	1,430	1,150	869	10,546	179	31,470	2,614	51,386
1949	4,172	1,260	1,437	1,872	13,676	167	39,783	2,793	65,160
1950	4,039	2,626	1,188	1,048	13,135	225	46,236	3,890	72,387
1951	4,852	3,271	1,760	3,087	12,375	185	56,604	4,613	86,747

(a) Includes notes, cheques and bills of other banks. (b) Includes Rural and Industries Bank of Western Australia and State Bank of South Australia accounts with State Treasuries. (c) Ten months ended June, 1946. (d) *See* footnote (c) to table above.

8. **All Cheque-paying Banks.**—(i) *General.* Particulars of the average liabilities and assets within Australia of all cheque-paying banks in Australia, including the General Banking Division and Rural Credits, Mortgage Bank and Industrial Finance Departments of the Commonwealth Bank of Australia, are given in the following paragraph. The Central Banking business of the Commonwealth Bank of Australia is excluded.

(ii) *Average Liabilities and Assets within Australia.* The following tables show the average liabilities and assets within Australia of all cheque-paying banks for the years ended June, 1946 to 1951.

ALL CHEQUE-PAYING BANKS : AVERAGE LIABILITIES WITHIN AUSTRALIA.(*a*)

(£'000.)

Year ended June—	Interminable Deposits or Deposit Stock.	Deposits.			Notes in Circulation.	Balances due to Other Banks.	Bills payable and all other Liabilities to the Public.	Total Liabilities.
		Not bearing Interest.	Bearing Interest.	Total.				
1946(*b*) ..	14,239	437,037	245,824	682,861	166	1,649	9,306	708,221
1947	13,211	481,096	229,515	710,611	159	2,193	10,366	736,540
1948	17,208	528,675	221,199	749,874	158	12,680	12,576	792,496
1949	21,288	635,871	231,812	867,683	158	38,142	19,324	946,595
1950	20,935	780,923	249,332	1,030,255	158	47,683	33,252	1,132,283
1951	20,785	1,022,049	279,553	1,301,602	158	67,732	38,857	1,429,134

(*a*) Includes Territories of Papua and New Guinea. (*b*) Ten months ended June, 1946.

ALL CHEQUE-PAYING BANKS : AVERAGE ASSETS WITHIN AUSTRALIA.(*a*)

(£'000.)

Year ended June—	Cash and Cash Balances.	Special Account with Commonwealth Bank.	Balances with other Banks.	Australian Public Securities.		Other Securities.	Loans, Advances and Bills discounted.	All other Assets.	Total Assets.
				Treasury Bills.	Other.				
1946(*b*) ..	48,354	241,843	11,507	68,351	160,294	390	249,436	15,328	795,503
1947	47,621	266,951	12,170	29,692	139,993	459	309,706	18,311	824,903
1948	54,950	263,688	13,684	20,147	108,813	2,088	394,658	21,561	879,589
1949	59,059	323,930	16,103	24,444	109,592	975	457,595	24,681	1,016,379
1950	69,973	379,632	19,406	29,512	132,301	835	531,795	23,857	1,187,311
1951	72,586	503,588	26,368	64,101	129,719	1,391	638,352	25,926	1,462,031

(*a*) Includes Territories of Papua and New Guinea. (*b*) Ten months ended June, 1946.

9. **Classification of Advances within Australia—Commonwealth Bank and Private Trading Banks.**—(i) *States, June,* 1951. A dissection of advances made by the Commonwealth Bank (General Banking Division and the Rural Credits, Mortgage Bank and Industrial Finance Departments) and the Private Trading Banks at the end of June, 1951, is shown in the following table. Business advances, which have been classified according to the main industry of the borrower, are those made mainly for business purposes and include all loans to corporate bodies other than public authorities. Advances made to public authorities are those made to Commonwealth, State and Local Governments, Government Agencies and Semi-governmental Authorities irrespective of the purpose of the advance or the industry in which the authority is engaged. Personal advances, which have been classified according to purpose, include advances to persons in their private capacity for such purposes as the purchase of a house or of household equipment, repayment of personal debts, etc.

COMMONWEALTH BANK(*a*) AND PRIVATE TRADING BANKS: CLASSIFICATION OF ADVANCES WITHIN AUSTRALIA(*b*)—STATES, END OF JUNE, 1951.

(£'000.)

Classification.	N.S.W. (*c*)	Vic.	Q'land. (*b*)	S. Aust. (*d*)	W. Aust.	Tas.	Total Aust. (*b*)	Proportion of Total.
A. BUSINESS ADVANCES CLASSIFIED ACCORDING TO MAIN INDUSTRY OF BORROWER.								
1. Agriculture, Dairying and Grazing—								%
Mainly Sheep Grazing ..	23,811	10,142	4,018	2,486	2,138	418	43,013	6.91
Mainly Cattle Grazing ..	3,147	1,681	5,490	135	267	166	10,886	1.75
Mainly Wheat Growing ..	6,423	2,554	1,718	1,686	2,552	8	14,941	2.40
Mainly Sugar Growing ..	295	..	6,623	..	..	..	6,918	1.11
Mainly Fruit Growing ..	1,475	2,099	1,021	867	651	509	6,622	1.07
Mainly Dairying and Pig Raising ..	9,036	11,471	12,013	1,517	1,759	686	36,482	5.86
Other Rural ..	3,070	2,553	2,697	676	566	656	10,218	1.64
Total Class 1 ..	47,257	30,500	33,580	7,367	7,933	2,443	129,080	20.74
2. Manufacturing ..	42,502	56,515	11,147	4,278	2,921	1,963	119,326	19.17
3. Transport, Storage and Communication ..	4,823	4,571	2,120	639	772	511	13,436	2.16
4. Finance and Property—								
Builders and Contractors ..	6,371	5,210	2,267	622	578	614	15,662	2.52
Building Investment Companies and Building Societies, etc. ..	20,008	6,220	474	268	162	60	27,192	4.37
Other (Banking, Insurance, etc.) (*e*) ..	14,784	10,481	7,392	2,492	2,095	945	38,189	6.13
Total Class 4 ..	41,163	21,911	10,133	3,382	2,835	1,619	81,043	13.02
5. Commerce—								
Retail Trade ..	19,279	13,177	7,079	3,117	2,622	1,748	47,022	7.56
Wholesale Trade ..	20,749	13,581	2,591	3,293	1,336	756	42,306	6.80
Total Class 5 ..	40,028	26,758	9,670	6,410	3,958	2,504	89,328	14.36
6. Miscellaneous (*f*) ..	12,933	10,457	5,962	1,517	2,190	1,313	34,372	5.52
7. Not elsewhere specified	1,678	1,445	602	463	277	503	4,968	0.80
Total	190,384	152,157	73,214	24,056	20,886	10,856	471,553	75.77
B. ADVANCES TO PUBLIC AUTHORITIES.								
Public Authority Advances (including Government, Semi-Governmental and Municipal Bodies) ..	5,220	11,072	1,690	203	325	167	18,677	% 3.00
C. PERSONAL ADVANCES CLASSIFIED ACCORDING TO MAIN PURPOSE OF ADVANCE.								
1. Advances for building or purchasing own home (Individuals) ..	37,193	28,636	15,431	4,184	6,490	2,673	94,607	% 15.20
2. All Other (including Personal Loans) ..	17,412	11,756	4,206	1,623	1,798	701	37,496	6.03
Total	54,605	40,392	19,637	5,807	8,288	3,374	132,103	21.23
TOTAL ADVANCES.								
Grand Total ..	250,209	203,621	94,541	30,066	29,499	14,397	622,333	% 100.00

(*a*) General Banking Division and the Rural Credits, Mortgage Bank and Industrial Finance Departments. (*b*) Includes Papua and New Guinea. (*c*) Includes Australian Capital Territory. (*d*) Includes Northern Territory. (*e*) Includes trustee, pastoral finance and cash order companies, friendly societies, stockbrokers, real estate agents, etc. (*f*) Includes (i) fishing, hunting, trapping and forestry; (ii) mining and quarrying; (iii) legal and other profession, religious, charitable and benevolent institutions, hospitals, schools and industrial and trade associations; (iv) amusements, wireless broadcasting, sporting associations and promoters; and (v) hotels, boarding houses and restaurants, laundries, social clubs, etc.

(ii) *Australia, December*, 1948 *to June*, 1951. The following table provides a dissection of advances within Australia (including Papua and New Guinea) at the end of December, 1948 (the earliest date for these statistics), June, 1949, June, 1950 and June, 1951.

COMMONWEALTH BANK(*a*) AND PRIVATE TRADING BANKS: CLASSIFICATION OF ADVANCES WITHIN AUSTRALIA(*b*)—AMOUNT AND PROPORTION OF EACH CLASS TO TOTAL.

Classification.	At End of—							
	December, 1948.		June, 1949.		June, 1950.		June, 1951.	
	Amount (£'000).	Per cent.	Amount (£'000).	Per cent.	Amount (£'000).	Per cent.	Amount (£'000).	Per cent.
BUSINESS ADVANCES CLASSIFIED ACCORDING TO MAIN INDUSTRY OF BORROWER.								
1. Agricultural, Dairying and Grazing—								
Mainly Sheep Grazing ..	42,374	10.3	42,635	9.5	41,612	7.9	43,013	6.9
Mainly Cattle Grazing ..	9,178	2.2	9,399	2.1	9,399	1.8	10,886	1.7
Mainly Wheat Growing ..	15,621	3.8	14,678	3.3	16,661	3.2	14,941	2.4
Mainly Sugar Growing ..	3,884	0.9	4,753	1.0	5,718	1.1	6,918	1.1
Mainly Fruit Growing ..	4,964	1.2	5,308	1.2	6,476	1.2	6,622	1.1
Mainly Dairying and Pig Raising	26,750	6.5	28,149	6.2	32,506	6.2	36,482	5.9
Other Rural ..	7,069	1.7	7,860	1.7	9,362	1.8	10,218	1.6
Total Class 1 ..	100,840	26.6	112,782	25.0	121,734	23.2	129,080	20.7
2. Manufacturing ..	87,438	21.2	99,895	22.2	97,387	18.5	119,326	19.2
3. Transport, Storage and Communication ..	8,274	2.0	9,354	2.1	11,343	2.2	13,436	2.2
4. Finance and Property—								
Builders and Contractors ..	7,606	1.8	9,266	2.0	11,966	2.3	15,662	2.5
Building Investment Companies and Building Societies, etc.	13,515	3.3	15,027	3.3	21,102	4.0	27,192	4.4
Other (Banking, Insurance, etc.)(*c*) ..	27,532	6.7	32,260	7.2	36,863	7.0	38,189	6.1
Total Class 4 ..	48,653	11.8	56,553	12.5	69,931	13.3	81,043	13.0
5. Commerce—								
Retail Trade ..	27,671	6.7	32,520	7.2	37,997	7.2	47,022	7.6
Wholesale Trade ..	37,283	9.0	30,274	6.7	33,820	6.5	42,306	6.8
Total Class 5 ..	64,954	15.7	62,794	13.9	71,817	13.7	89,328	14.4
6. Miscellaneous(*d*) ..	24,179	5.9	27,328	6.1	32,248	6.1	34,372	5.5
7. Not elsewhere specified	2,454	0.6	2,794	0.6	3,349	0.6	4,968	0.8
Total ..	345,792	83.8	371,500	82.4	407,809	77.6	471,553	75.8
ADVANCES TO PUBLIC AUTHORITIES.								
Public Authority Advances (including Government, Semi-Government and Municipal Bodies) ..	7,485	1.8	8,455	1.9	18,956	3.6	18,677	3.0
PERSONAL ADVANCES CLASSIFIED ACCORDING TO MAIN PURPOSE OF ADVANCE.								
1. Advances for Building or purchasing own home (Individuals) ..	39,501	9.6	46,711	10.4	68,509	13.0	94,607	15.2
2. All Other (including Personal Loans) ..	19,985	4.8	23,854	5.3	30,545	5.8	37,496	6.0
Total	59,486	14.4	70,565	15.7	99,054	18.8	132,103	21.2
TOTAL ADVANCES.								
Grand Total	412,763	100.0	450,520	100.0	525,819	100.0	622,333	100.0

(*a*) General Banking Division and the Rural Credits, Mortgage Bank and Industrial Finance Departments. (*b*) Includes Papua and New Guinea. (*c*) Includes trustee, pastoral finance and cash order companies, friendly societies, stockbrokers, real estate agents, etc. (*d*) Includes (i) fishing, hunting, trapping and forestry; (ii) mining and quarrying; (iii) legal and other profession, religious, charitable and benevolent institutions, hospitals, schools and industrial and trade associations; (iv) amusements, wireless broadcasting, sporting associations and promoters; and (v) hotels, boarding houses and restaurants, laundries, social clubs, etc.

10. **Interest on Deposits Rates—Cheque-Paying Banks.**—Particulars of interest rates for fixed deposits since 1936 are shown hereunder. The rates have not changed since 1st December, 1945.

BANK FIXED DEPOSIT RATES.

(Per cent. per annum.)

Dates from which rates operated.	Deposits for—			
	Three Months.	Six Months.	Twelve Months.	Two Years.
24th March, 1936 (a)	2	2½	2¾	3
24th January, 1940..	1¾	2¼	2½	2¾
28th May, 1940	1½	2	2¼	2½
22nd September, 1941	1½	1¾	2	2¼
14th March, 1942	1¼	1½	1¾	2
17th January, 1944..	1	1¼	1½	2
11th August, 1944	½	¾	1¼	1¾
1st December, 1945..	½	¾	1	(b) 1½

(a) Commonwealth Bank only. Bank of New South Wales from 2nd March and Bank of Adelaide from 3rd March, 1936. (b) On first £10,000; rate on amount in excess of £10,000 is 1 per cent.

11. **Clearing House Returns.**—(i) *Annual Clearings.* Particulars of the aggregate bank clearings for each capital city, compiled from information supplied by the Commonwealth Bank, Sydney, are given in the following table. As transactions connected with the issue and redemption of Treasury Bills inflate the clearings and are of an abnormal character they have been excluded from the table.

CLEARING HOUSE RETURNS: VALUE OF BILLS, CHEQUES, ETC.(a)

(£'000.)

Year ended 31st December—	Sydney.	Melbourne.	Brisbane.	Adelaide.	Perth.	Hobart.	Total.
1939	932,367	812,563	222,988	152,334	107.089	33,898	2,261,239
1942	1,248,500	1,263,869	275,639	220,475	125,116	40,385	3,173,984
1943	1,442,344	1,411,724	335,137	248,295	137,599	45,853	3,620,952
1944	1,499,603	1,446,607	369,016	266,123	144,699	52,136	3,778,184
1945	1,512,418	1,483,450	366,210	268,255	151,652	57,409	3,839,394
1946 . ..	1,854,271	1,825,987	389,642	321,043	189,747	65,671	4,646,361
1947	2,123,697	1,964,027	450,912	370,084	226.467	73,131	5,208,318
1948	2,599,995	2,365,782	528,003	468,582	288,812	86,300	6,337,474
1949	2,998,359	2,778,183	623,228	543,879	344,684	98,636	7,386,969
1950	3,917,257	3,652,973	799,412	701,220	459,119	123,748	9,653,729
1951	4,932,891	4,600,403	983,143	886,301	594,868	162,338	12,159,944

(a) Excludes Treasury Bill transactions.

(ii) *Average Weekly Clearings.*—The average weekly clearings in each capital city for the years ended June, 1939 and 1942 to 1951 are shown in the following table. Transactions connected with the issue and redemption of Treasury Bills are excluded.

BANK CLEARINGS(a): AVERAGE WEEKLY CLEARINGS.

(£'000.)

Year ended June—	Sydney.	Melbourne.	Brisbane.	Adelaide.	Perth.	Hobart.	Total.
1939	17,832	15,415	4,212	2,953	2,055	623	43,090
1942	22,747	22,823	4,815	3,970	2,336	731	57,422
1943	26,084	25,830	5,904	4,532	2,489	813	65,652
1944	28,071	27,051	6,816	4,924	2,719	943	70,524
1945	28,556	27,839	6,895	5,127	2,777	1,032	72,226
1946	30,968	31,398	7,154	5,593	3,257	1,185	79,555
1947(b) ..	38,580	35,631	7,978	6,469	3,926	1,310	93,894
1948(b) ..	44,786	41,237	9,288	8,038	4,892	1,543	109,784
1949(b) ..	53,519	48,870	11,131	9,663	6,039	1,778	131,000
1950(b) ..	64,909	61,003	13,278	11,604	7,458	2,116	160,368
1951(b) ..	88,588	82,022	18,046	15,957	10,809	2,885	218,307

(a) Excludes transactions connected with the issue and redemption of Treasury Bills. (b) Periods ended on last Wednesday; previously periods ended on last Monday.

12. **Debits to Customers' Accounts—All Cheque-Paying Banks.**—Statistics of debits to customers' accounts have been collected since September, 1945. Generally they represent the total of all cheques drawn by the customers of the banks. In the following table are shown the average weekly debits to customers' accounts of all cheque-paying banks for each State for the years ended June, 1946 to 1951. In this table debits to accounts of Australian Governments in capital cities are excluded as they are subject to abnormal influences and are not uniform for each State.

AVERAGE WEEKLY DEBITS TO CUSTOMERS' ACCOUNTS: ALL CHEQUE-PAYING BANKS.

(Excluding Debits to Australian Government Accounts in capital cities.)

(£'000.)

Year ended June—	N.S.W.	Vic.	Q'land.	S. Aust.	W.Aust.	Tas.	A.C.T.	Total.
1946(a)	46,732	43,512	14,724	8,639	5,807	2,889	95	122,398
1947	58,080	52,901	16,824	10,443	7,142	3,374	119	148,883
1948(b)	69,360	61,197	19,864	12,710	8,671	3,947	142	175,891
1949	83,082	74,267	24,365	15,481	10,696	4,699	205	212,795
1950	104,876	97,758	29,482	19,326	13,744	5,605	265	271,056
1951	145,110	134,925	39,011	26,844	19,250	7,370	373	372,883

(a) Ten months ended June, 1946. (b) From January, 1948 debits to Customers' Accounts relating to the transfer of accounts from the Queensland National Bank Ltd. (in voluntary liquidation) to the National Bank of Australasia Ltd. have been excluded.

13. **Rates of Exchange.**—(i) *Oversea Exchange Rates.* In the following table the average telegraphic transfer rates of exchange for Sydney on a number of oversea countries are shown. For the year 1938–39 the rates quoted are the averages of quotations at the end of each month; for subsequent years they are averages of daily quotations. Generally the averages are based on rates quoted by the Commonwealth Bank of Australia, but where these were not available rates quoted by other Australian Banks have been used.

OVERSEA EXCHANGE RATES: AVERAGE TELEGRAPHIC TRANSFER RATES FOR SYDNEY ON OVERSEA COUNTRIES.(*a*)

Country.	Basis of Quotation.	Rate.	1938–39.	1946–47.	1947–48.	1948–49.	1949–50.	1950–51.
United Kingdom	£A. to £Stg.100	Buying	125.000	125.000	125.000	125.000	125.000	125.000
		Selling	125.500	125.500	125.500	125.500	125.500	125.500
New Zealand ..	£A. to £N.Z.100	Buying	100.063	100.000	100.000	120.638	124.000	124.000
		Selling	100.594	100.500	100.500	121.171	124.538	124.538
South Africa ..	£A. to £S.A.100	Buying	123.848	124.125	124.125	124.125	124.125	124.125
		Selling	125.546	125.625	125.625	125.625	125.625	125.625
Fiji	£A. to £F.100	Buying	111.125	111.125	111.125	111.125	111.125	111.125
		Selling	113.000	113.000	113.000	113.000	113.000	113.000
New York ..	Dollars to £A.1	Buying	3.7945	3.2361	3.2350	3.2298	2.4611	2.2425
		Selling	3.7581	3.1991	3.2002	3.2041	2.4445	2.2275
Montreal ..	Dollars to £A.1	Buying	3.8063	3.2453	3.2360	3.2301	2.6373	2.3910
		Selling	3.7797	3.2020	3.1992	3.2039	2.6183	2.3732
France ..	Francs to £A.1	Buying	142.29	386.58	(*i*)470.23	811.29	809.38	788.38
		Selling	141.21	379.89	508.98	798.67	797.23	776.50
Switzerland ..	Francs to £A.1	Buying	16.778	13.938	13.938	13.938	10.748	9.843
		Selling	16.590	13.766	13.766	13.766	10.607	9.710
Belgium ..	Francs to £A.1	Buying	112.217	142.368	142.350	142.350	123.586	112.84
		Selling	110.935	139.662	139.680	139.680	121.257	110.71
Holland ..	Florins to £A.1	Buying	7.046	8.610	8.605	8.605	8.574	8.565
		Selling	6.943	8.460	8.465	8.465	8.434	8.425
Denmark ..	Kroner to £A.1	Buying	18.017	15.590	15.590	15.590	15.590	15.590
		Selling	17.781	15.290	15.290	15.290	15.290	15.290
Norway ..	Kroner to £A.1	Buying	16.007	16.120	16.120	16.120	16.120	16.120
		Selling	15.803	15.820	15.820	15.820	15.820	15.820
Sweden ..	Kronor to £A.1	Buying	15.623	11.683	11.665	11.665	11.665	11.665
		Selling	15.406	11.473	11.465	11.465	11.465	11.465
Java ..	Guilders to £A.1	Buying	7.030	(*b*)	(*b*)	(*b*)	(*b*)	(*b*)
		Selling	6.939	(*c*) 8.461	8.465	8.465	(*d*) 8.438	(*b*)
Manila ..	Pesos to £A.1	Buying	7.659	6.540	6.533	6.529	(*e*) 4.996	(*e*) 4.540
		Selling	7.528	6.424	6.417	6.413	(*f*) 4.886	4.442
Hong Kong ..	Pence (Aust.) to 1 Dollar	Buying	18.526	18.570	18.609	18.587	18.488	18.569
		Selling	18.883	18.994	18.969	18.952	18.834	18.897
India and Ceylon	Pence (Aust.) to 1 Rupee	Buying	22.287	22.319	22.328	22.328	22.328	22.328
		Selling	22.604	22.775	22.766	22.766	22.766	22.766
Pakistan ..	Pence (Aust.) to 1 Rupee	Buying	(*g*)	(*g*)	22.328	22.328	31.507	32.172
		Selling	(*g*)	(*g*)	22.766	22.766	32.017	32.688
Noumea ..	Francs to £A.1	Buying	(*b*)	(*b*)	(*b*)	(*b*)	(*b*)	(*b*)
		Selling	(*b*)	(*b*)	*h*159.00	159.00	145.64	141.75
Singapore ..	Pence (Aust.) to 1 Dollar	Buying	34.706	34.904	35.019	34.930	34.891	34.977
		Selling	35.224	35.594	35.539	35.484	35.442	35.536

(*a*) Years ended 30th June. (*b*) No quotations. (*c*) Eleven months. (*d*) No quotations from 14th March, 1950. (*e*) No quotations 4th January to 5th March, 1950. In 1950-51 quoted for 3 days only. (*f*) No quotations 4th January to 23rd February, 1950. (*g*) Part of India. (*h*) Five months. (*i*) No quotations, 27th January to 13th April.

(ii) *Interstate.* Exchange rates between the capital cities and towns of each of the States and other States or parts thereof at 30th June, 1951 are shown below. Rates varied from 2s. 6d. per cent. between the nearer locations to 10s. per cent. between those more widely separated.

INTERSTATE EXCHANGE RATES, 30th JUNE, 1951.
(Per Cent.—s. d.)

Between—	And—					
	New South Wales	Victoria.	Brisbane and adjacent towns.	South Australia.	Perth and all but distant towns.	Tasmania.
Sydney and New South Wales towns ..	..	2 6	2 6	5 0	7 6	5 0
Melbourne and Victorian towns ..	2 6	..	5 0	2 6	5 0	2 6
Brisbane and adjacent towns ..	2 6	5 0	..	7 6	10 0	7 6
Adelaide and South Australian towns.	5 0	2 6	7 6	..	2 6	5 0
Perth and all but distant towns ..	7 6	5 0	10 0	2 6	..	7 6
Hobart and Tasmanian towns ..	5 0	2 6	7 6	5 0	7 6	..

The exchange rate between Papua and New Guinea and the mainland is 10s. per cent. for all points.

§ 2. Savings Banks.

1. **General.**—The inauguration of Savings Banks in Australia dates from 1819, when a private Savings Bank was opened in Sydney. In 1832 the legislature created "The Savings Bank of New South Wales" under the control of trustees, and shortly after its establishment the funds of the private Savings Bank were transferred to the new institution. In the other States provision for placing deposits with Savings Banks dates from 1841 in Victoria; 1854 in Queensland; 1840 in South Australia; 1863 in Western Australia (a Savings Bank was opened in 1856 but was closed a year later); 1835 in Launceston; and 1845 in Hobart. These early banks functioned as Trustee Savings Banks, but, with the exception of the Hobart and Launceston institutions, were later absorbed by, or amalgamated with, Government Savings Banks.

Post Office Savings Banks were established in all States from 1864 onwards. These were separate Government institutions except in South Australia, where the Post Office acted as agent for the Savings Bank. Since the federation of the Australian States in 1900, post offices have been controlled by the Commonwealth Government, but they continued to act as savings bank agencies for the State institutions until the establishment of the Commonwealth Bank in 1912. They now act as agents for the Commonwealth Savings Bank.

Savings banks at present operating are the Commonwealth Savings Bank (all States and Territories); State Savings Bank of Victoria; Savings Bank of South Australia; and the two Trustee Banks—Hobart and Launceston.

2. **Extension of Facilities.**—The prime object of the foundation of savings banks in Australia was the encouragement of thrift, deposits of one shilling and upwards being accepted; nevertheless the facilities offered, while preserving the original object, have led to developments in another direction. Although depositors may not operate on their accounts by means of cheques, they have practically all the other advantages of a current account and in addition receive interest on their minimum monthly balances. No charge is made by the banks for keeping the accounts.

3. **Statistical Returns.**—Commencing with July, 1931, monthly returns have been furnished by savings bank authorities. The information given in the following paragraphs relates to the deposits at 30th June in each year. For convenience of reference the information has been grouped under the following headings :—

(i) All Savings Banks; (ii) Commonwealth Savings Bank; and (iii) State Savings Banks (including Trustee Banks in Tasmania).

4. **Number of Accounts.**—The following table shows the number of savings bank accounts in existence at 30th June, 1950 and 1951. It should be noted that these figures relate to the number of accounts and not necessarily to the number of depositors.

ALL SAVINGS BANKS : NUMBER OF ACCOUNTS.(*a*)

Bank.	30th June, 1950.		30th June, 1951.	
	Operative.	Inoperative. (*b*)	Operative.	Inoperative. (*b*)
Commonwealth Savings Bank ..	4,029,129	1,799,376	4,166,606	1,935,370
State Savings Bank of Victoria ..	1,424,106	536,743	1,461,903	553,823
Savings Bank of South Australia ..	500,546	145,857	518,587	147,185
Hobart Savings Bank	83,542	(*c*) 30,748	87,491	(*c*) 32,201
Launceston Bank for Savings ..	67,562	22,506	72,292	22,619
Total	6,104,885	2,535,230	6,306,879	2,691,198

(*a*) Excludes special purpose and school bank accounts. (*b*) Inoperative accounts are those accounts with balances of less than £1 which have not been operated on for a period of over two years. (*c*) Estimated.

5. **All Savings Banks.**—(i) *Particulars for Years* 1949–50 *and* 1950–51. The following statement shows details of the business transacted by all savings banks for the years 1949–50 and 1950–51 :—

ALL SAVINGS BANKS : BUSINESS TRANSACTED.

(£'000.)

State or Territory.	Amount on Deposit at 30th June, 1949.	1949–50.			1950–51.		
		Excess of Deposits over Withdrawals during year.	Interest added during year.	Amount on Deposit at end of year.	Excess of Deposits over Withdrawals during year.	Interest added during year.	Amount on Deposit at end of year.
New South Wales ..	244,483	10,378	4,013	258,874	21,393	4,200	284,467
Victoria	239,246	13,766	4,109	257,121	20,337	4,321	281,779
Queensland ..	87,442	3,330	1,429	92,201	5,152	1,487	98,840
South Australia ..	81,176	4,964	1,555	87,695	8,473	1,681	97,849
Western Australia	37,535	1,456	621	39,612	4,409	651	44,672
Tasmania ..	22,413	1,425	434	24,272	2,421	462	27,155
Northern Territory	726	122	11	859	94	12	965
Australian Capital Territory ..	1,211	218	22	1,451	242	24	1,717
Total ..	714,232	35,659	12,194	762,085	62,521	12,838	837,444

(ii) *Deposits.* (*a*) 30*th June*, 1939 *and* 1947 *to* 1951. The following table shows for all savings banks the amount at credit of depositors and the average deposits per head of population at 30th June, 1939 and 1947 to 1951 :—

ALL SAVINGS BANKS : DEPOSITS.

30th June.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	N. Terr.	A.C.T.	Total.
				TOTAL. (£'000.)					
1939	87,474	80,461	29,045	27,397	12,396	8,396	99	319	245,587
1947	231,368	216,107	85,602	67,900	36,625	20,856	537	1,020	660,015
1948	236,964	226,401	84,836	73,613	36,183	21,572	649	1,100	681,318
1949	244,483	239,246	87,442	81,176	37,535	22,413	726	1,211	714,232
1950	258,874	257,121	92,201	87,695	39,612	24,272	859	1,451	762,085
1951	284,467	281,779	98,840	97,849	44,672	27,155	965	1,717	837,444
				PER HEAD OF POPULATION. (£ *s.* *d.*)					
1939	31 16 7	42 16 8	28 10 7	45 18 6	26 7 5	35 1 5	15 14 8	25 7 4	35 4 11
1947	77 10 3	105 3 6	77 7 5	105 1 11	72 17 9	81 2 7	49 7 11	60 7 6	87 1 7
1948	78 6 6	108 5 10	75 5 1	111 17 5	70 4 4	82 4 5	52 1 2	55 10 9	88 7 3
1949	78 10 5	111 16 10	75 19 9	120 12 1	70 9 4	83 4 0	52 12 7	56 11 0	90 5 6
1950	80 5 4	116 14 5	77 17 9	125 4 8	71 0 0	86 17 6	56 2 5	60 15 11	93 2 0
1951	86 1 2	124 17 1	82 11 5	136 11 8	77 8 10	103 8 3	61 13 3	68 19 7	99 18 7

(*b*) *Deposits per head and Purchasing Power.* Particulars of the deposits per head of population, actual and adjusted to purchasing power by the application of retail price index-numbers, at 30th June in each of the years 1939 and 1942 to 1951 are shown in the following table. In calculating the index-numbers in this table the average of deposits per head of population at 30th June, 1937, 1938 and 1939 has been used as a base and made equal to 1,000.

ALL SAVINGS BANKS: DEPOSITS PER HEAD OF POPULATION.

At 30th June—	Actual.		Adjusted to Purchasing Power.(*a*)	
	Deposits per head of population.	Index-Number.	Deposits per head of population.	Index-Number.
	£	1937–1939 = 1000	£	1937–1939 = 1000
1939	35.25	1018	34.32	991
1942	38.20	1103	31.55	911
1943	49.48	1429	38.66	1117
1944	64.51	1863	51.20	1479
1945	76.70	2215	60.89	1758
1946	88.89	2567	69.32	2002
1947	87.08	2515	66.24	1913
1948	88.36	2552	61.75	1783
1949	90.28	2607	57.46	1659
1950	93.10	2689	54.20	1565
1951	99.93	2886	48.68	1406

(*a*) On the basis of the All Items ("C") Series of Retail Price Index-numbers (6 capitals) for June quarter in each year. (Base: average of June quarters, 1937, 1938 and 1939 = 1,000.)

In interpreting the figures above it should be remembered that savings bank accounts are used to some extent by institutions and business people, as well as by individuals for the investment of personal savings. The relative extent to which savings bank accounts are used for business purposes, etc., may, and probably does fluctuate considerably from time to time.

6. **School Banking.**—With the object of encouraging principles of thrift amongst children, agencies of the Savings Banks have been established at most of the schools throughout Australia. Particulars of operative accounts for each State and Territory at 30th June, 1951 were as follows:—

SCHOOL SAVINGS BANKS AT 30th JUNE, 1951.

State.	Number of Schools.	Number of Operative Accounts.	Deposits.	Deposits per Operative Account.
			£	£ *s.* *d.*
New South Wales	2,516	165,694	880,970	5 6 4
Victoria	2,738	178,984	934,902	5 4 6
Queensland	1,235	69,456	462,629	6 13 2
South Australia	817	89,048	527,264	5 18 5
Western Australia	500	49,953	342,378	6 17 1
Tasmania	417	37,098	211,214	5 13 10
Northern Territory ..	7	906	7,172	7 18 4
Australian Capital Territory ..	9	776	3,343	4 6 2
Total	8,239	591,915	3,369,872	5 13 10

Corresponding particulars for the Commonwealth at 30th June of the years 1939 and 1942 to 1951 appear below :—

SCHOOL SAVINGS BANKS : AUSTRALIA.

At 30th June—	Number of Schools.	Number of Operative Accounts.	Deposits.	Deposits per Operative Account.
			£	£ s. d.
1939	9,535	560,116	1,090,703	1 18 11
1942	9,206	488,997	922,805	1 17 9
1943	9,062	492,289	1,120,897	2 5 6
1944	8,909	507,598	1,506,620	2 19 4
1945	8,676	509,832	1,858,011	3 12 11
1946	8,512	516,330	2,125,130	4 2 4
1947	8,444	518,629	2,311,015	4 9 1
1948	8,556	535,433	2,514,652	4 13 11
1949	8,329	557,218	2,766,542	4 19 4
1950	8,262	576,670	3,027,666	5 5 0
1951	8,239	591,915	3,369,872	5 13 10

7. **War Savings and Savings Certificates.**—Sales of savings certificates and stamps under the War Savings and Savings Certificate schemes, particulars of which were given in earlier issues of the Official Year Book (*see* No. 37, page 586), were discontinued after 31st January, 1949, except for some sales made to wind up savings groups, etc. This method of saving was replaced by special savings schemes to operate through the savings banks. Employers were asked to co-operate by forming employee savings groups and by making regular deductions from wages and salaries for payment into group savings bank accounts, and thence, at the end of each quarter to individual accounts. The total value of certificates outstanding at 30th June in each of the last five years was :—1947, £59,520,000 ; 1948, £64,483,000 ; 1949, £62,198,000 ; 1950, £55,025,000 ; 1951, £48,115,00.

8. **Commonwealth Savings Bank.**—(i) *General.* The Savings Bank Department of the Commonwealth Bank opened for business in Victoria on 15th July, 1912 ; in Queensland on 16th September, 1912 ; in the Northern Territory on 21st October, 1912 ; and in New South Wales, South Australia and Western Australia on 13th January, 1913. The Tasmanian State Savings Bank was absorbed by the Commonwealth Bank in January, 1913, the Queensland State Savings Bank was taken over in 1920 and the New South Wales and Western Australian State Savings Banks in 1931. The Savings Bank Department was separated from the General Bank on 9th June, 1928, and established as a separate institution known as the " Commonwealth Savings Bank ". It has since then operated independently, publishing its own balance-sheets and profit and loss accounts. The Commonwealth Bank Act 1927, which provided for the establishment of the Commonwealth Savings Bank as a separate institution, provided for a Commission of

three members to manage the Savings Bank. This Commission was never appointed and the Commonwealth Bank Act 1945 placed the control of the Commonwealth Savings Bank under the Governor of the Commonwealth Bank.

(ii) *Particulars for Years* 1949–50 *and* 1950–51. Particulars for the States and Territories for the years 1949–50 and 1950–51 are shown in the table below :—

COMMONWEALTH SAVINGS BANK : BUSINESS TRANSACTED.

(£'000.)

State or Territory.	Amount on Deposit at 30th June, 1949.	1949–50. Excess of Deposits over Withdrawals during year.	1949–50. Interest added during year.	1949–50. Amount on Deposit at end of year.	1950–51. Excess of Deposits over Withdrawals during year.	1950–51. Interest added during year.	1950–51. Amount on Deposit at end of year.
New South Wales	244,483	10,378	4,013	258,874	21,393	4,200	284,467
Victoria	51,887	5,683	871	58,441	8,685	966	68,092
Queensland ..	87,442	3,330	1,429	92,201	5,152	1,487	98,840
South Australia ..	14,587	1,819	251	16,657	3,260	286	20,203
Western Australia..	37,535	1,456	621	39,612	4,409	651	44,672
Tasmania ..	8,362	637	145	9,144	1,195	158	10,497
Northern Territory	726	122	11	859	94	12	965
Australian Capital Territory ..	1,211	218	22	1,451	242	24	1,717
Total ..	446,233	23,643	7,363	477,239	44,430	7,784	529,453

(iii) *Deposits—30th June,* 1939 *and* 1947 to 1951. The amount on deposit with the Commonwealth Savings Bank in each State, in the Territories of Papua and New Guinea, and in London at 30th June in each of the years 1939 and 1947 to 1951 was as follows :—

COMMONWEALTH SAVINGS BANK : DEPOSITS, 30th JUNE.

(£'000.)

Place of Deposit.	1939.	1947.	1948.	1949.	1950.	1951.
New South Wales	87,474	231,368	236,964	244,483	258,874	284,467
Victoria	11,242	47,959	48,620	51,887	58,441	68,092
Queensland..	29,045	85,602	84,836	87,442	92,201	98,840
South Australia	3,167	12,892	12,993	14,587	16,657	20,203
Western Australia	12,396	36,625	36,183	37,535	39,612	44,672
Tasmania	2,358	7,947	8,028	8,362	9,144	10,497
Northern Territory	99	537	649	726	859	965
Australian Capital Territory ..	319	1,020	1,100	1,211	1,451	1,717
Total	146,100	423,950	429,373	446,233	477,239	529,453
Papua and New Guinea (*a*) ..	209	750	1,047	1,356	1,620	1,977
London (*a*)	571	750	797	768	760	864
Grand Total	146,880	425,450	431,217	448,357	479,619	532,294

(*a*) Not included in the figures shown in paras. 5 (i) and (ii) and 8 (ii).

(iv) *Balance-sheet, 30th June,* 1950 *and* 1951. Particulars of the liabilities and assets of the Commonwealth Savings Bank as at 30th June, 1950 and 1951 were as follows :—

COMMONWEALTH SAVINGS BANK(*a*) : LIABILITIES AND ASSETS, 30th JUNE.

(£'000.)

Liabilities.	1950.	1951.	Assets.	1950.	1951.
Reserve Fund ..	6,299	6,772	Cash Balances and Money at Short Call	49,865	54,035
Depositors' Balances and Accrued Interest	480,295	533,033	Australian Notes and Coin	676	686
Contingency Account and other Liabilities	14,158	14,990	Government Securities	393,456	437,946
			Securities of Municipal and Other Public Authorities ..	35,617	39,244
			Bank Premises ..	1,288	1,727
			Other Assets ..	19,850	21,157
Total ..	500,752	554,795	Total ..	500,752	554,795

(*a*) Includes London and Territories of Papua and New Guinea branches.

(v) *Profits.* Under the terms of the Savings Bank Amalgamation Agreements the profits of the Commonwealth Savings Bank in New South Wales, Queensland, Western Australia and Tasmania are equally divided between the Bank and the former controlling authorities in those States. Net profits for the years ended 30th June, 1939 and 1942 to 1951 and the distribution of those profits are shown in the following table: —

COMMONWEALTH SAVINGS BANK : DISTRIBUTION OF PROFITS.

(£.)

Year ended 30th June—	Total Profit.	Payments to State Authorities under Savings Bank Amalgamation Agreements.					Published Profit.	Distribution of Published Profit.	
		New South Wales. (*a*)	Queensland. (*b*)	Western Australia. (*b*)	Tasmania. (*b*)	Total.		National Debt Sinking Fund.	Savings Bank Reserve Fund.
1939 ..	532,736	168,878	30,464	13,251	3,861	216,454	316,282	158,141	158,141
1942 ..	609,286	178,978	41,215	16,351	3,988	240,532	368,754	184,377	184,377
1943 ..	653,341	189,091	48,198	19,479	3,973	260,741	392,600	196,300	196,300
1944 ..	848,934	226,020	86,226	32,498	5,408	350,152	498,782	249,391	249.391
1945 ..	1,403,029	383,675	152,373	54,486	10,321	600,855	802,174	401,087	401,087
1946 ..	1,511,858	395,379	174,485	59,997	11,089	640,950	870,908	435.454	435,454
1947 ..	1,526,506	397,385	175,229	61,215	12,043	645,872	880,694	440,347	440,347
1948 ..	1,536,398	421,221	176,453	40,410	12,471	650,555	885,843	442,922	442,921
1949 ..	1,438,579	420,096	152,302	19,261	9,001	600,669	837,919	418,959	418,960
1950 ..	1,492,459	430,781	159,795	24,255	4,921	619,752	872,707	436,353	436,354
1951 ..	1,616,082	459,959	170,191	30,370	9,321	669,841	946,241	473,120	473,121

(*a*) Paid to Rural Bank of New South Wales. (*b*) Paid to State Consolidated Revenue Funds.

9. **State Savings Banks.**—(i) *Particulars for Years* 1949–50 *and* 1950–51. Particulars of the transactions of all State savings banks for the years 1949–50 and 1950–51 are given hereunder. Throughout the following tables the figures for Tasmania refer to the Trustee Savings Banks in Hobart and Launceston. Although the accounts of these institutions are made up for half-yearly periods ending 28th February and 31st August, the managements have furnished particulars of deposits as at 30th June.

STATE SAVINGS BANKS: BUSINESS TRANSACTED.

(£'000.)

State.	Amount on Deposit at 30th June, 1949.	1949–50.			1950–51.		
		Excess of Deposits over Withdrawals during year.	Interest added during year.	Amount on Deposit at end of year.	Excess of Deposits over Withdrawals during year.	Interest added during year.	Amount on Deposit at end of year.
Victoria	187,359	8,083	3,238	198,680	11,652	3,355	213,687
South Australia ..	66,589	3,145	1,304	71,038	5,213	1,395	77,646
Tasmania ..	14,051	788	289	15,128	1,226	304	16,658
Total ..	267,999	12,016	4,831	284,846	18,091	5,054	307,991

NOTE.—The State savings banks in New South Wales, Queensland, Western Australia and Tasmania were absorbed by the Commonwealth Savings Bank.

(ii) *Deposits—30th June,* 1939 *and* 1947 *to* 1951. The following statement shows the amount on deposit with State savings banks at 30th June in each of the years 1939 and 1947 to 1951 :—

STATE SAVINGS BANKS: DEPOSITS AT 30th JUNE.

(£'000.)

State.	1939.	1947.	1948.	1949.	1950.	1951.
Victoria ..	69,219	168,148	177,781	187,359	198,680	213,687
South Australia	24,230	55,008	60,620	66,588	71,038	77,646
Tasmania ..	6,038	12,909	13,544	14,051	15,128	16,658
Total ..	99,487	236,065	251,945	267,998	284,846	307,991

(iii) *Assets, 30th June,* 1951. At 30th June, 1951 the assets of all State savings banks amounted to £327,204,096 distributed as shown hereunder :—

STATE SAVINGS BANKS: ASSETS, 30th JUNE, 1951.

(£.)

Particulars.	Victoria.	South Australia.	Tasmania. (*a*)	Total.
Cash in hand, in transit and on Current Account	9,502,328	2,222,522	1,003,062	12,727,912
Fixed Deposits	35,812,000	12,074,750	1,515,000	49,401,750
Outstanding Interest, Dividends and Rents	1,498,392	505,345	165,120	2,168,857
Government Securities	126,150,894	48,457,933	7,047,503	181,656,330
Municipal and other Public Securities	48,392,748	11,489,298	4,994,675	64,876,721
Mortgages	3,742,010	7,518,664	3,673,853	14,934,527
Landed and House Property ..	875,000	444,306	103,181	1,422,487
All other Assets	11,818	..	3,694	15,512
Total Assets	225,985,190	82,712,818	18,506,088	327,204,096

(*a*) At 31st August, 1951. *See* par. 9 (i).

At 30th June, 1950 the assets of the State savings banks amounted to £302,592,000, of which £180,730,000 was in Government securities, £49,283,000 in municipal and other public securities and £47,087,000 in fixed deposits. State totals were Victoria, £210,263,000 ; South Australia, £75,838,000 ; and Tasmania, £16,491,000.

(iv) *Profit and Loss Accounts*, 1950–51. Details of the profit and loss accounts of the several State savings banks for the year 1950–51 are given below :—

STATE SAVINGS BANKS : PROFIT AND LOSS ACCOUNTS, 1950–51.

(£.)

Particulars.	Victoria.	South Australia.	Tasmania. (a)	Total.
Receipts—				
Total—Interest, Dividends, Rents, and all other ..	5,597,366	2,186,285	532,455	8,316,106
Expenditure—				
Interest allotted to Depositors ..	3,081,160	1,269,821	326,438	4,677,419
Provision for accrued interest on Depositors' Balances ..	300,970	130,000	..	430,970
Expenses of Management ..	1,494,791	513,305	116,420	2,124,516
All other Expenditure ..	393,186	67,630	6,868	467,684
Total	5,270,107	1,980,756	449,726	7,700,589
Profit for year	327,259	205,529	82,729	615,517
Balance of profit and loss account brought forward	154,396	136,142	105,668	396,206
Total	481,655	341,671	188,397	1,011,723
Distribution of Profits—				
Amount written off Bank Premises	25,000	9,287	19,615	53,902
Amount carried to Reserves and Depreciation Funds ..	275,000	200,000	63,000	538,000
Balance of Profit and Loss Account carried forward ..	181,655	132,384	105,782	419,821

(a) Year ended 31st August, 1951. *See* par. 9 (1).

In 1949–50 total receipts were £7,580,000 and expenditure, £6,936,000. Net profits amounted to £644,000.

10. **Classification of Depositors' Balances.**—The classification of deposits published by savings banks does not permit a fully detailed analysis with respect to Australia as a whole, but information supplied to the Royal Commission on Monetary and Banking Systems for all savings banks except the Hobart Trustee Savings Bank shows that at 30th June, 1936 the amount on deposit in accounts with balances of less than £100 represented 21 per cent. of the total deposits ; balances of over £100 but under £250, 21 per cent. ; over £250 but under £500, 23 per cent. ; over £500 but under £1,000, 25 per cent. ; while those of over £1,000 accounted for 10 per cent. School, penny bank and small inoperative accounts were excluded in determining these percentages.

A similar classification as at 30th June, 1936, 1939 and 1947 to 1951, but relating only to the combined State Savings Banks of Victoria and South Australia, is shown below.

STATE SAVINGS BANKS : CLASSIFICATION OF DEPOSITS.

(Per Cent.)

At 30th June—	£100 and Under.	£101–£300.	£301–£500.	Total under £501.	£501–£1,000.	Over £1,000.
1936.. ..	19.54	26.13	17.84	63.51	27.42	9.07
1939.. ..	20.27	27.15	17.90	65.32	26.14	8.54
1947.. ..	11.51	23.40	20.53	55.44	32.45	12.11
1948.. ..	52.72			52.72	32.74	14.54
1949.. ..	50.11			50.11	33.14	16.75
1950.. ..	48.44			48.44	32.81	18.75
1951.. ..	47.45			47.45	32.22	20.33

11. **Rates of Interest on Deposits.**—The following tables show the rates of interest allowed at 30th June, 1939 and 1942 to 1951 by State and trustee savings banks and by the Commonwealth Savings Bank.

STATE AND TRUSTEE SAVINGS BANKS : INTEREST RATES(a) ON DEPOSITS, 30th JUNE.

(Per Cent.)

Savings Bank—	State Savings Bank of Victoria.			Savings Bank of South Australia.				The Hobart Savings Bank.		The Launceston Bank for Savings.	
Interest-bearing Limit—	£1,000.			£1,000.				£450. (b)		£450. (b)	
Part of balance—	£1 to £500.	£501 to £1,000.	Deposit Stock.	£1 to £200.	£201 to £500.	£501 to £1,000.	Deposit Stock.	£1 to £300. (b)	Deposits fixed for twelve months.	£1 to £300. (b)	Deposits fixed for twelve months.
1939	2	2	2½	3	2¾	2½	..	3	3¼	3	3¼
1942	2	1½	1¾	2¼	2¼	1¾	..	2¼	2¼	2¼	2¼
1943	2	1½	1¾	2¼	2¼	1¾	..	2¼	2¼	2¼	2¼
1944	2	1½	1½	2¼	2¼	1¾	..	2¼	2¼	2¼	2¼
1945	2	1¼	1¼	2¼	2¼	1½	..	2¼	2¼	2¼	2¼
1946	2	1	1	2¼	2¼	1¼	..	2¼	2¼	2¼	2¼
1947	2	1	1	2¼	2¼	1¼	..	2¼	2¼	2¼	2¼
1948	2	1	1	2¼	2¼	1¼	..	2¼	2¼	2¼	2¼
1949	2	1	1	2¼	2¼	1¼	1	2¼	2¼	2¼	2¼
1950	2	1	1	2¼	2¼	1¼	1	2¼	2¼	2¼	2¼
1951	2	1	1	2¼	2¼	1¼	1	2¼	2¼	2¼	2¼

(a) Rates on ordinary accounts. On Friendly and other Society Accounts the rates at 30th June, 1951 were—State Savings Bank of Victoria, 2 per cent. on first £2,000, 1 per cent. on balance; Savings Bank of South Australia, 2½ per cent. on first £500, 2 per cent. on next £1,500 and 1 per cent. on the balance. (b) Increased from £300 to £450 from 13th April, 1951.

COMMONWEALTH SAVINGS BANK : INTEREST RATES(a) ON DEPOSITS, 30th JUNE.

(Per Cent.)

Part of balance—	£1 to £500.	£501 to £1,000.(b)	Part of balance—	£1 to £500.	£501 to £1,000.(b)
1939	2	1¾	1946	2	1
			1947	2	1
1942	2	1½	1948	2	1
1943	2	1½	1949	2	1
1944	2	1½	1950	2	1
1945	2	1¼	1951	2	1

(a) Rates on ordinary accounts. On Friendly and other Society Accounts the rates at 30th June, 1951 were 2 per cent. on first £2,000 and 1 per cent. on the balance. (b) Up to 1941 the interest-bearing limit in all States except Queensland was £1,300. In Queensland it was £2,000. The limit since 1942 has been £1,000 in all States.

C. COMPANIES.

NOTE.—Statistics available in regard to registered companies relate to (a) **Trustees, Executors and Agency Companies**; (b) **Registered Building and Investment Societies**; and (c) **Registered Co-operative Societies.**

§ 1. Trustees, Executors and Agency Companies.

The following table shows, for the years 1939 and 1946 to 1950, particulars of the assets and liabilities of certain trustee companies transacting business in Australia and New Zealand. Figures for the year 1939 were obtained from returns supplied to the Commonwealth Bureau of Census and Statistics, while those for the years 1946 to 1950 have been extracted from a summary of the last published balance-sheets as shown in the *Australasian Insurance and Banking Record.* Individual items are therefore not entirely comparable. Details of assets of trust funds administered are shown for the year 1939, but for the years 1946 to 1950 totals are available for nine offices only.

TRUSTEES, EXECUTORS AND AUSTRALIA AND NEW ZEALAND AGENCY COMPANIES.

Particulars.	1939.	1946.	1947.	1948.	1949.	1950.
Number of Companies ..	20	23	23	23	24	24
Liabilities—	£	£	£	£	£	£
Capital paid-up	1,312,202	1,408,452	1,408,452	1,408,452	1,528,452	1,528,452
Reserves and undistributed Profits	1,235,750	1,344,572	1,381,156	1,415,774	1,472,884	1,483,424
Other Liabilities	150,960	825,455	891,026	954,475	823,804	867,364
Total Liabilities ..	2,698,912	3,578,479	3,680,634	3,778,701	3,825,140	3,879,240
Assets—						
Government and Municipal Securities	730,935	*a*1,060,516	*a*1,173,982	*a*1,236,679	*a*1,437,640	*a*1,450,221
Loans on Mortgage ..	397,944	513,044	493,918	470,902	431,629	412,203
Other Loans and Advances ..	75,141	(*b*)	(*b*)	(*b*)	(*b*)	(*b*)
Real Property	1,148,566	1,075,552	1,079,443	1,077,724	1,081,434	1,111,837
Deposits in Banks ..	147,717	(*c*) 326,148	(*c*) 249,189	(*c*) 241,464	(*c*) 240,784	(*c*) 206,538
Other Assets	198,609	603,219	684,102	751,932	633,653	698,441
Total Assets	2,698,912	3,578,479	3,680,634	3,778,701	3,825,140	3,879,240
Assets of Trust Funds Administered—(*d*)	£'000.	£'000.	£'000.	£'000.	£'000.	£'000.
Australian Government and Municipal Securities ..	68,515	Not available				
British and Foreign Government and Municipal Securities	1,342					
Loans on Mortgage ..	30,977					
Other Loans and Advances ..	2,713					
Shares in Companies ..	59,351					
Real Property	51,732					
Deposits in Banks ..	8,958					
Other Assets	13,409					
Total Trust Fund Assets	236,997	(*e*)179,035	(*e*)183,138	(*e*)187,044	(*e*) 190,594	(*e*) 195,982

(*a*) Includes fixed deposits and deposits with Government. (*b*) Included with other assets. (*c*) Cash. (*d*) Includes particulars of trust funds administered by Public Trustees in 1939 only. (*e*) Nine offices only.

§ 2. Registered Building and Investment Societies.

1. **Summary.**—During 1950 returns were received from 688 societies, but the information is not exhaustive, as particulars regarding a number of organizations are not included. In the following table general information is given relating to the societies for the year 1950.

REGISTERED BUILDING AND INVESTMENT SOCIETIES: SUMMARY, 1949–50.

Particulars.		N.S.W.	Vic. (a)	Q'land.	S. Aust. (a)	W.Aust.	Tas.	Total.
Societies making returns—								
Permanent ..	No.	22	20	5	5	7	5	64
Terminating ..	No.	596	2	4	20	2	..	624
Total ..	..	618	22	9	25	9	5	688
Number of shareholders ..		97,182	11,232	19,922	22,646	23,520	8,259	182,761
,, shares ..	..	b 1,495,368	975,987	4,842,146	105,264	(c)	67,050	7,485,815
,, borrowers	..	(d) 7,529	16,931	8,345	3,078	3,920	2,195	41,998
Income for year from interest, etc.	£	580,957	573,497	151,898	59,804	108,966	63,665	1,538,787
Working expenses for year	£	413,875	377,120	175,016	26,151	22,036	19,618	1,033,816
Amounts of deposits during year	£	937,015	1,119,405	249,396	41,849	475,595	14,831	2,838,091
Repayments of loans during year	£	1,421,870	2,773,199	1,033,467	297,436	456,134	357,697	6,339,803
Loans granted during year	£	e 2,960,616	1,769,013	1,179,611	460,332	724,707	493,722	7,588,001

(a) Year 1950. (b) Terminating societies only—Starr-Bowkett Societies, 406,621, and other terminating societies, 1,088,747. (c) Not available. (d) Permanent societies only. (e) Incomplete—other terminating societies not available.

2. **Liabilities and Assets.**—Particulars of liabilities and assets in 1950 of the 688 societies mentioned in the previous paragraph are shown below.

REGISTERED BUILDING AND INVESTMENT SOCIETIES: LIABILITIES, 1949–50.

(£.)

State.	Paid-up Capital and Subscriptions.	Reserve Funds.	Deposits.	Bank Overdrafts and other Liabilities.	Total Liabilities
New South Wales ..	11,036,332	1,452,929	966,587	29,179,903	42,635,751
Victoria	3,582,604	1,164,108	4,133,495	2,940,080	11,820,287
Queensland	2,948,324	88,810	109,750	236,377	3,383,261
South Australia ..	1,417,662	144,015	161,367	55,479	1,778,523
Western Australia ..	1,495,246	54,493	217,845	(a) 172,218	1,939,802
Tasmania	864,230	139,221	184,753	115,733	1,303,937
Total ..	21,344,398	3,043,576	5,773,797	32,699,790	62,861,561

(a) Includes net accumulated profits, £59,562.

REGISTERED BUILDING AND INVESTMENT SOCIETIES: ASSETS, 1949–50.

(£.)

State.	Advances on Mortgage.	Landed and House Property, Furniture, etc.	Cash in Hand and on Deposit.	Other Assets.	Total Assets.
New South Wales	a40,842,182	(b)	465,846	1,327,723	42,635,751
Victoria	11,460,196	194,877	29,344	135,870	11,820,287
Queensland	(a)3,327,231	14,165	24,176	17,689	3,383,261
South Australia	1,543,235	51,677	105,135	78,476	1,778,523
Western Australia	1,788,751	15,344	40,654	95,053	1,939,802
Tasmania	1,229,396	10,868	1,103	62,570	1,303,937
Total	60,190,991	286,931	666,258	1,717,381	62,861,561

(a) Includes Starr-Bowkett and other terminating societies:—N.S.W., £35,693,088; Queensland, £551,146. (b) Not available.

§ 3. Co-operative Societies.

1. **General.**—Returns relating to co-operative societies are divided into three classes—(i) those engaged in the manufacture and marketing of primary products and trade requirements; (ii) those engaged in retailing general household requirements; and (iii) those engaged in activities covered by both classes (i) and (ii). The first class may be described briefly as Producers' Co-operative Societies and the second as Consumers' Co-operative Societies. The particulars given for New South Wales relate to societies registered under the Co-operation Act 1923–1945. A summary of the business of co-operative societies for the year 1950 for all States except Western Australia is given in the following table. For Western Australia details of the business during 1940–41 (the latest year available) are given.

CO-OPERATIVE SOCIETIES: SUMMARY.

Particulars.		N.S.W. 1949–50. (a)	Vic. 1949–50.	Q'land. 1949–50.	S. Aust. 1950.	W. Aust. 1940–41.	Tas. 1949–50.
Producers' Societies.							
Number of Societies	..	189	56	125	38	37	(b) 12
„ Branches	..	(c)	39	66	6	24	7
„ Members	..	91,004	40,559	81,731	11,467	13,073	11,695
Gross Turnover (Sales)	£	42,418,101	10,035,635	27,111,272	3,220,198	1,752,805	1,842,615
Other Income	£	958,090	736,457	902,240	167,292	664,919	83,222
Total Income	£	43,376,191	10,772,092	28,013,512	3,387,490	2,417,724	1,925,837
Total Purchases during Year	£	37,349,922	8,490,886	22,746,056	2,372,855	1,570,626	1,354,435
Other Expenditure	£	5,783,999	2,007,354	5,075,020	650,994	720,602	485,449
Total Expenditure	£	43,133,921	10,498,240	27,821,076	3,023,849	2,291,228	1,839,884
Rebates and Bonuses	£	241,589	50,990	251,254	355,604	2,363	10,431
Dividends on Share Capital	£	88,674	61,120	78,896	14,513	13,114	13,027
Consumers' Societies.							
Number of Societies	..	74	27	50	15	5	..
„ Branches	..	(c)	15	19	193	(c)	..
„ Members	..	75,279	15,353	31,124	78,330	2,715	..
Gross Turnover (Sales)	£	7,083,624	2,102,483	3,362,714	3,428,113	171,758	..
Other Income	£	88,929	41,860	39,578	52,695	3,587	..
Total Income	£	7,172,553	2,144,343	3,402,292	3,480,808	175,345	..
Total Purchases during Year	£	5,759,233	1,768,781	2,850,607	2,766,555	140,944	..
Other Expenditure	£	1,091,362	344,242	486,650	571,053	32,307	..
Total Expenditure	£	6,850,595	2,113,023	3,337,257	3,337,608	173,251	..
Rebates and Bonuses	£	353,314	63,435	68,359	173,325	862	..
Dividends on Share Capital	£	39,597	9,202	11,263	31,325	1,583	..
Societies Which are both Producers' and Consumers'.							
Number of Societies	..	..	11	2	15	43	..
„ Branches	..	..	8	6	..	12	..
„ Members	..	..	4,984	3,150	2,269	5,875	..
Gross Turnover (Sales)	£	..	3,124,232	1,361,148	734,100	624,213	..
Other Income	£	..	42,783	13,007	262,437	29,943	..
Total Income	£	..	3,167,015	1,374,155	996,537	654,156	..
Total Purchases during Year	£	..	2,643,649	1,137,196	782,475	542,849	..
Other Expenditure	£	..	462,706	210,977	242,634	97,832	..
Total Expenditure	£	..	3,106,355	1,348,173	1,025,109	640,681	..
Rebates and Bonuses	£	..	17,517	..	38,202	12,247	..
Dividends on Share Capital	£	..	5,254	1,049	4,103	4,400	..

(a) Particulars relate to societies registered under the Co-operation Act 1923–1945. Particulars shown under Producers' Societies refer to Rural Societies, and under Consumers' to Trading Societies. (b) Includes one Consumers' Society for which separate details are not available for publication. (c) Not available.

2. **Liabilities and Assets.**—The next table shows the liabilities and assets for the same years for which information is available :—

CO-OPERATIVE SOCIETIES : LIABILITIES AND ASSETS.

(£.)

Particulars.	N.S.W. 1949–50. (*a*)	Vic. 1949–50.	Q'land. 1949–50.	S. Aust. 1950.	W. Aust. 1940–41.	Tas. 1949–50.
PRODUCERS' SOCIETIES.						
Liabilities—						(*b*)
Paid-up Capital	2,638,124	1,185,518	2,462,202	281,888	272,932	212,601
Loan Capital	..	98,143	641,796	385,262	210,260	56,456
Bank Overdrafts	3,257,479	841,329	2,085,587	149,239	24,777	171,190
Accumulated Profits	..	372,168	573,146	106,870	6,906	70,033
Reserve Funds	2,769,302	878,713	2,499,200	362,048	208,812	97,709
Sundry Creditors	4,329,838	1,124,581	3,977,082	238,327	302,753	223,254
Other Liabilities		155,633	219,985	1,185,867	455,490	41,593
Total Liabilities	12,994,743	4,656,085	12,458,998	2,709,501	1,481,930	872,836
Assets—						
Land and Buildings	4,857,981	1,924,079	2,092,749	359,299	420,964	233,556
Machinery, Plant and other fixed Assets			3,681,078	400,246	216,520	117,689
Stocks	2,377,980	905,305	1,715,842	1,133,356	162,952	267,346
Sundry Debtors	2,984,356	1,313,638	4,023,185	376,596	369,605	206,597
Cash in hand and on deposit	..	93,458	418,093	165,975	165,945	10,561
Profit and Loss Account	..	1,245	24,468	197	44,723	..
Other Assets	2,774,426	418,360	503,583	273,832	101,221	37,087
Total Assets	12,994,743	4,656,085	12,458,998	2,709,501	1,481,930	872,836
CONSUMERS' SOCIETIES.						
Liabilities—						
Paid-up Capital	1,511,978	395,572	271,605	865,402	37,425	..
Loan Capital	..	59,364	54,366	260,813	(*c*)	..
Bank Overdrafts	201,322	183,590	230,437	34,614	4,008	..
Accumulated Profits	..	82,317	31,023	150,332	4,019	..
Reserve Funds	690,563	125,470	72,159	253,956	5,035	..
Sundry Creditors	665,971	118,786	207,014	95,562	15,096	..
Other Liabilities		24,517	123,249	22,516	471	..
Total Liabilities	3,069,834	989,616	989,853	1,683,195	66,054	..
Assets—						
Land and Buildings	800,689	387,733	133,491	324,065	10,002	..
Machinery, Plant and other fixed Assets			111,211	107,043	6,795	..
Stocks	1,081,959	360,728	407,848	802,171	27,555	..
Sundry Debtors	453,321	138,871	208,915	90,926	10,231	..
Cash in hand and on deposit	..	29,633	30,109	73,852	7,487	..
Profit and Loss Account	..	20,675	25,909	722	1,244	..
Other Assets	733,865	51,976	72,370	284,416	2,740	..
Total Assets	3,069,834	989,616	989,853	1,683,195	66,054	..
SOCIETIES WHICH ARE BOTH PRODUCERS' AND CONSUMERS'.						
Liabilities—						
Paid-up Capital	..	177,912	78,260	127,153	158,787	..
Loan Capital	..	25,794	..	117,796	14,749	..
Bank Overdrafts	..	66,999	144,583	377,042	32,603	..
Accumulated Profits	..	73,115	22,326	1,916	11,889	..
Reserve Funds	..	127,756	57,101	132,223	108,408	..
Sundry Creditors	..	177,155	87,596	115,910	56,684	..
Other Liabilities	..	32,465	2,007	255,800	1,410	..
Total Liabilities	..	681,196	391,873	1,127,840	384,530	..
Assets—						
Land and Buildings	..	326,661	86,803	211,861	79,313	..
Machinery, Plant and other fixed Assets	..		123,911	122,080	23,828	..
Stocks	..	168,435	98,676	390,004	160,930	..
Sundry Debtors	..	118,392	67,459	122,197	88,772	..
Cash in hand and on deposit	..	15,606	5,968	9,622	17,951	..
Profit and Loss Account	..	..	..	271	4,058	..
Other Assets	..	52,102	9,056	271,805	9,678	..
Total Assets	..	681,196	391,873	1,127,840	384,530	..

(*a*) Particulars relate to societies registered under the Co-operation Act 1923–1945. Particulars shown under Producers' Societies refer to Rural Societies and under Consumers' to Trading Societies. (*b*) Includes one Consumers' Society for which separate details are not available for publication. (*c*) Not available.

D. INSURANCE.

§ 1. Insurance—General.

1. **Legislation.**—Section 51 of the Commonwealth Constitution confers the necessary powers on the Commonwealth Parliament to legislate in regard to "insurance other than State insurance; also State insurance extending beyond the limits of the State concerned". Legislation by the Commonwealth Parliament includes the Life Assurance Companies Act 1905 limiting the amount of assurance payable on the death of children, the Marine Insurance Act 1909 defining the limits of marine insurance and regulating the terms of contracts, etc., the Insurance Act 1932–1937, requiring the lodgment of deposits by insurance companies, and the Life Insurance Act 1945–1950 generally regulating life insurance business in Australia. The Life Assurance Companies Act 1905 was repealed by the Life Insurance Act 1945–1950 which incorporated the provisions of that Act. The Marine Insurance Act 1909 and the Insurance Act 1932–1937 have limited application, and, except for life insurance business which is regulated by the Life Insurance Act 1945–1950, insurance business is conducted under State laws.

2. **Insurance Act 1932–1937.**—Companies, persons or associations of persons carrying on insurance business in Australia or in any Territory of Australia are required to deposit money or approved securities with the Commonwealth Treasurer to the extent specified in the schedule.

Money deposited is invested by the Treasurer in prescribed securities according to the selection of the depositor, and all interest accruing on deposits or securities is paid to depositors. Deposits remain as security against liability to policy holders, and are available to satisfy judgments obtained in respect of policies.

After this Act became law, State laws governing insurance deposits ceased to operate. Deposits held by States on 1st February, 1932, could, however, remain with the States subject to the conditions embodied in the laws of the States. Whilst deposits so remained with the State, the depositors, to the extent of the value of their deposits, were exempt from liability to make deposits under the Commonwealth Act, and the conditions of State laws continued to apply to the deposits until the Commonwealth Treasurer required their return to depositors who immediately had to make deposits of the prescribed amount with the Commonwealth Government.

The following are not regarded as insurance businesses under the Act:—

Staff superannuation schemes; schemes of religious organizations solely for insurance of their property; and Friendly Society, Union and Association schemes involving superannuation or insurance benefits to employees.

This Act does not apply to State insurance within the limits of the State concerned, and under the Life Insurance Act 1945–1950 ceased to apply to life insurance business.

The following statement shows particulars of deposits under the Insurance Act 1932–1937 and Life Insurance Act 1945–1950 at 30th June, 1950:—

DEPOSITS UNDER INSURANCE ACTS, 30th JUNE, 1950.
(£.)

Class of Insurance.	Deposited with Government of—		Total.
	Commonwealth.	States.	
Life	1,084,436	..	1,084,436
Other	1,967,866	1,448,360	3,416,226
Total	3,052,302	1,448,360	4,500,662

The deposits comprise cash £491,750, government, municipal and other securities £3,466,262, fixed deposits £1,000, bank guarantees and undertakings £249,000, titles and mortgages £292,650.

3. **Life Insurance Act 1945–1950.**—In his speech on the introduction of the Bill for the Life Insurance Act 1945 the Treasurer stated that the objects of the legislation were as follows :—(*a*) To replace all State legislation on the subject of life insurance and to provide a uniform basis for applying the requirements of those Acts to the whole of Australia ; (*b*) to incorporate existing Commonwealth Acts with minor amendments ; (*c*) to appoint an Insurance Commissioner who shall exercise active supervision of the activities of life insurance companies, with a view to securing the greatest possible protection for policy owners ; (*d*) to set up adequate machinery for dealing with any company that fails to maintain a required minimum standard of solvency.

In addition, it was proposed to provide for the establishment of a Commonwealth Government Insurance Office, if and when the establishment of such an office was thought to be in the public interest.

The Act was assented to on 16th August, 1945, and came into operation on 20th June, 1946. A summary of the provisions of the Act is given in Official Year Book No. 37 (pages 595 to 597).

The original Act was amended by the Life Insurance Act 1950 which specified the grounds on which registration of a company could be refused.

§ 2. Life Assurance.

1. **General.**—Statistical returns have been collected from life assurance institutions since 1907. Until 1946 these returns were collected under the Census and Statistics Act. Since 1947 returns lodged under the Life Insurance Act 1945–1950 have been used to compile life assurance statistics. This change in method of collection has resulted in some slight changes in definition and, as a result, the statistics for 1947 and later years are not in all cases strictly comparable with those for earlier years. In earlier years statistics of revenue and expenditure and of assets and liabilities, although generally related only to the life assurance business of the offices making the returns, also included, in some cases, a small amount of other classes of business. Under the Life Insurance Act 1945–1950 companies transacting life assurance business are required to set up separate statutory funds for their life assurance business. As a result of this, it has been possible to separate life assurance business from other classes of business. Except where otherwise indicated, the figures in the succeeding paragraphs refer to Australian business only.

2. **Offices Transacting Business.**—The number of offices which transacted life assurance business in Australia during 1950 was 23, including two oversea companies. Of the twenty-one Australian offices, six are purely mutual, including one which transacts general business in respect of which share capital is used, thirteen are public companies, and two are State Government institutions. Of the total offices, thirteen transacted both ordinary and industrial business, and one industrial business only. Ordinary and industrial business has, where possible, been kept separate.

3. **Australian Business—Policies in Existence.**—(i) *Ordinary.* In the following table details of ordinary policies on the registers in each State and the Australian Capital Territory are given for the year 1950 :—

ORDINARY LIFE ASSURANCE : AUSTRALIAN BUSINESS—POLICIES IN EXISTENCE, 1950.

State or Territory.(*a*)	Assurance and Endowment Policies.				Annuity Policies.		
	No. of Policies.	Sum Assured.	Bonus Additions.	Annual Premiums.	No. of Policies.	Amount Per Annum.	Annual Premiums.
		£'000.	£'000.	£'000.		£	£
New South Wales ..	867,042	376,762	39,037	13,102	3,753	636,292	161,061
Victoria..	663,822	310,683	31,365	10,923	4,735	2,450,489	549,621
Queensland(*b*)	401,579	167,830	14,580	5,411	713	54,096	8,308
South Australia	219,634	91,218	9,525	3,189	733	56,715	7,784
Western Australia ..	144,950	63,166	6,979	2,225	517	41,104	6,447
Tasmania	73,787	32,322	3,201	1,061	621	45,697	10,028
Australian Capital Territory	6,218	5,164	322	170	1,466	99,163	16,486
Total	2,377,032	1,047,145	105,009	36,081	12,538	3,383,556	759,735

(*a*) Location of register of policies. (*b*) Includes Territories of Papua and New Guinea.

The following table shows particulars of policies in existence at the end of the years 1939 and 1946 to 1950 inclusive :—

ORDINARY LIFE ASSURANCE : AUSTRALIAN BUSINESS—POLICIES IN EXISTENCE.

At End of Year—	Assurance and Endowment Policies.				Annuity Policies.	
	No. of Policies.	Sum Assured.	Average per Policy.	Annual Premiums.	No. of Policies.	Amount per Annum.
		£'000.	£	£'000.		£
1939	1,243,378	427,291	344	(a) 13,954	3,826	384,584
1946	1,730,153	655,000	379	22,322	(b)	(b)
1947	1,901,639	740,496	389	25,463	11,461	2,179,160
1948	2,070,939	834,467	403	28,767	12,644	2,511,865
1949	2,224,240	930,791	419	32,109	14,138	2,802,424
1950	2,377,032	1,047,145	441	36,081	12,538	3,383,556

(a) Annual premium income. (b) Not available.

(ii) *Industrial.* In the following table, details of industrial policies on the registers in each State and the Australian Capital Territory are given for the year 1950 :—

INDUSTRIAL LIFE ASSURANCE : AUSTRALIAN BUSINESS—POLICIES IN EXISTENCE, 1950.

State or Territory.(a)	Assurance and Endowment Policies.				Annuity Policies.	
	No. of Policies.	Sum Assured.	Bonus Additions.	Annual Premiums.	No. of Policies.	Amount per Annum.
		£'000.	£'000.	£'000.		£
New South Wales	1,420,689	89,372	2,302	4,685	..	..
Victoria	1,227,607	77,108	2,192	4,089	1	13
Queensland(b)	429,681	28,286	698	1,467	..	..
South Australia	391,226	22,590	640	1,194	..	..
Western Australia	228,559	14,752	369	764	..	..
Tasmania	91,103	5,889	175	302	..	..
Australian Capital Territory ..	4,209	324	12	16	..	..
Total	3,793,074	238,321	6,388	12,517	1	13

(a) Location of register of policies. (b) Includes Territories of Papua and New Guinea.

Particulars of policies in existence at the end of the years 1939 and 1946 to 1950 are shown in the following table :—

INDUSTRIAL LIFE ASSURANCE : AUSTRALIAN BUSINESS—POLICIES IN EXISTENCE.

At End of Year—	Assurance and Endowment Policies.				Annuity Policies.	
	No. of Policies.	Sum Assured.	Average per Policy.	Annual Premiums.	No. of Policies.	Amount per Annum.
		£'000.	£	£'000.		£
1939	2,491,742	111,862	45	(a) 6,490	2	58
1946	3,428,669	178,284	52	10,279	(b)	(b)
1947	3,540,816	193,107	55	10,859	3	62
1948	3,642,887	209,012	57	11,452	3	75
1949	3,725,017	224,012	60	12,001	2	39
1950	3,793,074	238,321	63	12,517	1	13

(a) Annual premium income. (b) Not available.

4. **New Policies issued in Australia.**—(i) *Ordinary Business.* During 1950, 265,846 new policies were issued for £167,271,000. The average amount per policy was £629 as compared with an average of £419 per policy for all ordinary policies which were in existence at the end of 1949.

In the following table details are given of new policies issued in each State and the Australian Capital Territory during 1950.

ORDINARY LIFE ASSURANCE: NEW POLICIES ISSUED IN AUSTRALIA, 1950.

State or Territory.(a)	Assurance and Endowment Policies.				Annuity Policies.			
	No. of Policies.	Sum Assured.	Premiums.		No. of Policies.	Amount per Annum.	Premiums.	
			Single.	Annual.			Single.	Annual.
		£'000.	£'000.	£'000.		£'000.	£'000.	£'000.
New South Wales ..	98,015	58,666	183	2,085	890	143	229	39
Victoria	73,982	51,207	63	1,817	1,616	699	301	163
Queensland(b)	43,132	26,504	47	852	101	6	11	2
South Australia ..	22,323	13,778	43	510	76	5	17	1
Western Australia ..	18,297	10,592	20	394	72	4	11	1
Tasmania	9,467	5,650	5	195	70	5	14	1
Aust. Capital Territory..	630	874	3	38	54	16	4	2
Total	265,846	167,271	364	5,891	2,879	878	587	209

(a) Location of register of policies. (b) Includes Territories of Papua and New Guinea.

New policies issued in Australia during each of the years 1939 and 1946 to 1950 were as follows :—

ORDINARY LIFE ASSURANCE: NEW POLICIES ISSUED IN AUSTRALIA.

Year.	Assurance and Endowment Policies.				Annuity Policies.			
	No. of Policies.	Sum Assured.	Premiums.		No. of Policies.	Amount per Annum.	Premiums.	
			Single.	Annual.			Single.	Annual.
		£'000.	£'000.	£'000.		£'000.	£'000.	£'000.
1939 ..	142,157	48,263	(a)	(a)	420	87	(a)	(a)
1946 ..	214,921	104,351	(a)	3,766	(a)	(a)	(a)	(a)
1947 ..	250,022	119,169	304	4,356	3,376	651	452	207
1948 ..	261,596	131,903	360	4,749	1,999	567	352	171
1949 ..	253,793	140,395	347	5,030	2,533	507	468	136
1950 ..	265,846	167,271	364	5,891	2,879	878	587	209

(a) Not available.

(ii) *Industrial Business.* New policies to the number of 289,275 were issued during the year 1950 for a total of £29,632,000. The average amount per policy was £102, as compared with the average of £60 for all industrial policies current at the end of 1949.

Details of new industrial policies issued in each State and the Australian Capital Territory during 1950 are given in the following table.

INDUSTRIAL LIFE ASSURANCE: NEW POLICIES ISSUED IN AUSTRALIA, 1950.

State or Territory.(a)	Assurance and Endowment Policies. No. of Policies.	Sum Assured.	Premiums. Single.	Annual.
		£'000.	£'000.	£'000.
New South Wales	106,754	11,136	3	512
Victoria	88,769	9,027	1	417
Queensland(b)	35,212	3,665	2	171
South Australia	30,502	2,758	1	129
Western Australia	20,290	2,224	..	102
Tasmania	7,346	777	..	34
Australian Capital Territory	402	45	..	2
Total	289,275	29,632	7	1,367

(a) Location of register of policies. (b) Includes Territories of Papua and New Guinea.

Details of new industrial policies issued in Australia during the years 1939 and 1946 to 1950 are given in the following table :—

INDUSTRIAL LIFE ASSURANCE: NEW POLICIES ISSUED IN AUSTRALIA.

Year.	Assurance and Endowment Policies. No. of Policies.	Sum Assured.	Premiums. Single.	Annual.
		£'000.	£'000.	£'000.
1939	385,498	18,542	(a)	(a)
1946	358,695	26,620	(a)	1,447
1947	315,948	27,228	6	1,293
1948	312,402	29,655	13	1,357
1949	300,988	29,690	7	1,367
1950	289,275	29,632	7	1,367

(a) Not available.

5. **Policies Matured or Otherwise Discontinued in Australia.**—(i) *Ordinary Business.* The volume of business which from various causes becomes void in each year is always large. In the following table details are given of ordinary life assurance policies matured or otherwise discontinued in each State and the Australian Capital Territory during the year 1950.

ORDINARY LIFE ASSURANCE: POLICIES MATURED OR OTHERWISE DISCONTINUED IN AUSTRALIA, 1950.

State or Territory.(a)	Assurance and Endowment Policies. No. of Policies.	Sum Assured.	Annual Premiums.	Annuity Policies. No. of Policies.	Amount per Annum.	Annual Premiums.
		£'000.	£'000.		£'000.	£'000.
New South Wales	42,893	19,292	719	1,776	40	11
Victoria	32,598	15,260	577	3,650	252	64
Queensland (b)	18,910	7,947	291	21	3	1
South Australia	7,693	3,674	143	31	2	..
Western Australia	6,781	3,033	116	29	1	..
Tasmania	4,044	1,850	68	44	3	1
Australian Capital Territory	135	−139	6	−1,282	−27	−6
Total	113,054	50,917	1,920	4,269	274	71

(a) Location of register of policies. (b) Includes Territories of Papua and New Guinea.

NOTE.—Minus sign (−) indicates excess of transfers to Australian registers or other adjustments to number or value of policies.

Ordinary life assurance policies matured or otherwise discontinued during each of the years 1939 and 1946 to 1950 were as follows :—

ORDINARY LIFE ASSURANCE : POLICIES MATURED OR OTHERWISE DISCONTINUED IN AUSTRALIA.

Year.	Assurance and Endowment Policies.			Annuity Policies.		
	No. of Policies.	Sum Assured.	Annual Premiums.	No. of Policies.	Amount per Annum.	Annual Premiums.
		£'000.	£'000.		£'000.	£'000.
1939	80,192	24,786	(*a*)	275	17	(*a*)
1946	70,804	27,714	(*a*)	(*a*)	(*a*)	(*a*)
1947	85,478	33,070	1,294	716	169	21
1948	92,296	37,932	1,445	816	234	223
1949	100,492	44,071	1,687	1,039	216	90
1950	113,054	50,917	1,920	4,269	274	71

(*a*) Not available.

The number and amount of ordinary policies, excluding annuities, discontinued in the three years 1939, 1949 and 1950 and the reasons for discontinuance are given in the following table :—

ORDINARY LIFE ASSURANCE : POLICIES(*a*) MATURED OR OTHERWISE DISCONTINUED IN AUSTRALIA.

Cause of Discontinuance.	1939.		1949.		1950.	
	No. of Policies.	Sum Assured.	No. of Policies.	Sum Assured.	No. of Policies.	Sum Assured.
		£'000.		£'000.		£'000.
Death or maturity ..	22,529	5,612	32,867	9,340	34,655	10,132
Surrender	18,409	5,863	35,889	17,956	42,710	22,270
Forfeiture	39,382	13,414	34,013	14,909	35,045	16,939
Other	−128	−103	−2,277	1,866	644	1,576
Total	**80,192**	**24,786**	100,492	44,071	113,054	50,917

(*a*) Excludes annuities.

NOTE :—Minus sign (—) indicates excess of transfers to Australian registers or other adjustments to number or value of policies.

(ii) *Industrial Business.* The number of policies discontinued each year in this branch also is very large. In the following table details are given of industrial policies matured or otherwise discontinued in each State and the Australian Capital Territory during 1950:—

INDUSTRIAL LIFE ASSURANCE: POLICIES MATURED OR OTHERWISE DISCONTINUED IN AUSTRALIA, 1950.

State or Territory.(a)	Assurance and Endowment Policies. No. of Policies.	Sum Assured.	Annual Premiums.
		£'000.	£'000.
New South Wales	88,972	6,168	341
Victoria	67,919	4,564	257
Queensland (b)	25,943	1,931	105
South Australia	19,513	1,199	69
Western Australia	13,932	1,037	56
Tasmania	4,836	412	22
Australian Capital Territory	103	12	1
Total	221,218	15,323	851

(a) Location of register of policies. (b) Includes Territories of Papua and New Guinea.

Details of industrial life assurance policies matured or otherwise discontinued during each of the years 1939 and 1946 to 1950 were as follows:—

INDUSTRIAL LIFE ASSURANCE: POLICIES MATURED OR OTHERWISE DISCONTINUED IN AUSTRALIA.

Year.	Assurance and Endowment Policies. No. of Policies.	Sum Assured.	Annual Premiums.
		£'000.	£'000.
1939	262,096	12,132	(a)
1946	208,564	11,777	(a)
1947	204,626	12,406	720
1948	211,386	13,750	766
1949	219,041	14,690	819
1950	221,218	15,323	851

(a) Not available.

The number and amount of policies, excluding annuities, discontinued during the three years 1939, 1949 and 1950 and the reasons for discontinuance are given in the following table.

INDUSTRIAL LIFE ASSURANCE: POLICIES(a) MATURED OR OTHERWISE DISCONTINUED IN AUSTRALIA.

Cause of Discontinuance.	1939. No. of Policies.	1939. Sum Assured.	1949. No. of Policies.	1949. Sum Assured.	1950. No. of Policies.	1950. Sum Assured.
		£'000.		£'000		£'000.
Death or maturity	73,585	2,759	113,833	4,962	115,594	4,880
Surrender	33,766	1,372	37,268	2,231	38,699	2,446
Forfeiture	154,328	7,976	67,800	7,466	66,542	7,950
Other	417	25	140	31	383	47
Total	262,096	12,132	219,041	14,690	221,218	15,323

(a) Excludes annuities.

6. **Premiums and Claims, Australia.**—(i) *Ordinary Business.* Details of revenue from premiums in respect of the ordinary business of all offices doing business in Australia are shown in the following table for each State and the Australian Capital Territory for the year 1950:—

ORDINARY LIFE ASSURANCE: AUSTRALIAN REVENUE FROM PREMIUMS, 1950.
(£'000.)

State or Territory.(a)	Assurance and Endowment Premiums.		Consideration for Annuities.		Total.
	Single Premiums.	Other Premiums.	Single Premiums.	Other Premiums.	
New South Wales ..	186	13,005	206	182	13,579
Victoria..	66	10,756	284	509	11,615
Queensland	20	5,238	12	8	5,278
South Australia	43	3,137	17	8	3,205
Western Australia ..	20	2,177	14	6	2,217
Tasmania	5	1,026	15	10	1,056
Australian Capital Territory	3	158	4	90	255
Total	343	35,497	552	813	37,205

(a) Location of register of policies.

The next table shows, for the six years 1939 and 1946 to 1950, the aggregate Australian income from premiums in respect of ordinary business of all offices doing business in Australia.

ORDINARY LIFE ASSURANCE: AUSTRALIAN REVENUE FROM PREMIUMS.
(£'000.)

Year.	Assurance and Endowment Premiums.	Consideration for Annuities.	Total.
1939	13,954	184	14,138
1946	22,320	459	22,779
1947	25,140	970	26,110
1948	28,611	1,009	29,620
1949	31,904	1,158	33,062
1950	35,840	1,365	37,205

Details of the claims, etc., paid on ordinary assurance policies in each State and the Australian Capital Territory during the year 1950 are shown in the following table:—

ORDINARY LIFE ASSURANCE: PAYMENTS TO POLICY-HOLDERS IN AUSTRALIA, 1950.
(£'000.)

State or Territory.(a)	Claims.		Surrenders.	Annuities.	Cash Bonuses.	Total.
	By Death or Disability.	By Maturity.				
New South Wales ..	2,684	1,950	925	124	50	5,733
Victoria	2,260	2,195	761	111	25	5,352
Queensland	930	1,064	316	20	9	2,339
South Australia	618	534	150	29	5	1,336
Western Australia ..	427	274	140	15	8	864
Tasmania	183	179	66	16	5	449
Australian Capital Territory	9	13	24	7	..	53
Total	7,111	6,209	2,382	322	102	16,126

(a) Location of register of policies.

In the following table details are given of claims, etc., paid on ordinary policies in Australia for the six years 1939 and 1946 to 1950 :—

ORDINARY LIFE ASSURANCE : PAYMENTS TO POLICY-HOLDERS IN AUSTRALIA.

(£'000.)

Year.	Claims.	Surrenders.	Annuities.	Cash Bonuses.	Total.
1939	7,935	1,843	220	260	10,258
1946	11,673	1,499	247	112	13,531
1947	10,858	1,608	261	105	12,832
1948	11,408	1,766	281	96	13,551
1949	12,273	1,951	298	98	14,620
1950	13,320	2,382	322	102	16,126

(ii) *Industrial Business.* Details of premiums on industrial policies received in each State and the Australian Capital Territory during the year 1950 are given in the following table :—

INDUSTRIAL LIFE ASSURANCE : AUSTRALIAN REVENUE FROM PREMIUMS, 1950.

(£'000.)

State or Territory.(a)	Assurance and Endowment Policies.		
	Single Premiums.	Other Premiums.	Total.
New South Wales	4	4,573	4,577
Victoria	3	3,993	3,996
Queensland	2	1,423	1,425
South Australia	1	1,162	1,163
Western Australia	1	736	737
Tasmania	..	293	293
Australian Capital Territory	..	16	16
Total	11	12,196	12,207

(a) Location of register of policies.

The Australian receipts from premiums on industrial policies for the years 1939 and 1946 to 1950 were as follows :—

INDUSTRIAL LIFE ASSURANCE : AUSTRALIAN REVENUE FROM PREMIUMS

(£'000.)

Particulars.	1939.	1946.	1947.	1948.	1949.	1950.
Assurance and Endowment Premiums	6,490	9,879	10,510	11,182	11,676	12,207

Details of payments of claims, etc., on industrial policies in each State and the Australian Capital Territory during the year 1950 are given in the following table :—

INDUSTRIAL LIFE ASSURANCE : PAYMENTS TO POLICY-HOLDERS IN AUSTRALIA, 1950.

(£'000.)

State or Territory.(a)	Claims.		Surrenders.	Cash Bonuses.	Total.
	By Death or Disability.	By Maturity.			
New South Wales ..	300	1,763	248	..	2,311
Victoria	266	1,570	176	..	2,012
Queensland	91	518	80	..	689
South Australia	76	412	44	..	532
Western Australia ..	44	250	44	..	338
Tasmania	15	97	13	..	125
Aust. Capital Territory ..	..	8	1	..	9
Total	792	4,618	606	..	6,016

(a) Location of register of policies.

Claims, etc., paid on industrial policies in Australia for the six years 1939 and 1946 to 1950 were as follows :—

INDUSTRIAL LIFE ASSURANCE : PAYMENTS TO POLICY-HOLDERS IN AUSTRALIA.

(£'000.)

Year.	Claims.	Surrenders.	Cash Bonuses.	Total.
1939	3,132	499	..	3,631
1946	4,834	368	..	5,202
1947	4,983	478	..	5,461
1948	5,320	503	1	5,824
1949	5,572	546	..	6,118
1950	5,410	606	..	6,016

7. **Total Revenue and Expenditure.**—(i) *Total Revenue.* The following table shows particulars of the total revenue derived by life assurance offices from sources within and beyond Australia during the years 1939 and 1946 to 1950 :—

ORDINARY AND INDUSTRIAL LIFE ASSURANCE : TOTAL REVENUE.

(£'000.)

Year.	Assurance and Endowment Premiums.	Consideration for Annuities granted.	Interest, Dividends and Rents.	All other Revenue.	Total Revenue.
	ORDINARY BUSINESS.				
1939	21,568	303	9,901	17	31,789
1946	33,197	642	12,801	42	46,682
1947	37,103	1,179	13,600	305	52,187
1948	41,614	1,232	14,371	68	57,285
1949	45,770	1,366	15,267	736	63,139
1950	50,867	1,572	16,613	2,327	71,379

ORDINARY AND INDUSTRIAL LIFE ASSURANCE: TOTAL REVENUE —*continued.*

(£'000.)

Year.	Assurance and Endowment Premiums.	Consideration for Annuities granted.	Interest, Dividends and Rents.	All other Revenue.	Total Revenue.
INDUSTRIAL BUSINESS.					
1939	7,863	..	2,127	61	10,051
1946	11,616	..	2,851	7	14,474
1947	12,359	..	3,021	80	15,460
1948	13,075	..	3,170	10	16,255
1949	13,576	..	3,301	366	17,243
1950	14,145	..	3,548	389	18,082

(ii) *Total Expenditure.* The next table supplies details of the total expenditure, both within and beyond Australia, of life assurance offices during the years 1939 and 1946 to 1950:—

ORDINARY AND INDUSTRIAL LIFE ASSURANCE : TOTAL EXPENDITURE.

(£'000.)

Year.	Claims and Annuities paid.	Surrenders.	Cash Bonuses paid to Policy-holders.	Commission.	Shareholders' Dividends.	All other Expenditure.(*a*)	Total Expenditure.
ORDINARY BUSINESS.							
1939 ..	12,320	2,668	380	1,483	125	3,867	20,843
1946 ..	17,929	2,105	176	2,655	89	4,081	27,035
1947 ..	17,318	2,234	143	3,250	94	5,066	28,105
1948 ..	18,674	2,545	138	3,471	97	5,094	30,019
1949 ..	19,735	2,845	143	3,613	105	6,390	32,831
1950 ..	20,876	3,481	152	4,027	105	6,187	34,828
INDUSTRIAL BUSINESS.							
1939 ..	3,763	576	..	1,619	72	1,278	7,308
1946 ..	5,860	419	..	2,010	49	1,654	9,992
1947 ..	6,052	543	..	2,075	46	1,763	10,479
1948 ..	6,409	587	1	2,058	41	1,859	10,955
1949 ..	6,778	638	..	2,082	37	2,159	11,694
1950 ..	6,622	710	..	2,116	31	2,416	11,895

(*a*) Includes other expenses of management, licence fees and taxes, etc.

8. **Liabilities and Assets.**—(i) *General.* The liabilities of the Australian offices consist mainly of their assurance funds, but in the case of public companies there is a further liability on account of the shareholders' capital. The assets consist chiefly of government and municipal securities, mortgages, loans on policies, landed and house property, etc. Loans on personal security are granted by very few of the Australian offices. A number of the larger Australian offices have extensive business overseas and separate details of liabilities and assets in respect of Australian business are not available for years after 1941. For 1941 and earlier years *see* Official Year Book No. 37 and previous issues.

(ii) *Total Liabilities and Assets.* In the two tables which follow the details of liabilities and assets relate to all business (Australian and overseas) of Australian companies, the life assurance business of the two State Government offices, all business of the Provident Life Assurance Co. Ltd. (incorporated in New Zealand) and the Australian business only of the Prudential Assurance Co. Ltd. (incorporated in England). For various reasons several offices do not attempt the dissection of liabilities and assets between the industrial and ordinary branches, and, therefore, the figures in the following tables relate to the ordinary and industrial branches combined. Details of the total liabilities of life assurance offices for the year 1950 are given in the following table :—

ORDINARY AND INDUSTRIAL LIFE ASSURANCE : TOTAL LIABILITIES, 1950.

(£'000.)

Item.	Life Assurance Business.	Other Classes of Business.	Total Liabilities.
Shareholders' Capital—			
Authorized	..	4,573	4,573
Less Unissued	..	1,849	1,849
Subscribed Capital	..	2,724	2,724
Paid-up—			
In Money	..	2,306	2,306
Otherwise than in Money	..	89	89
Total	..	2,395	2,395
Life Assurance Statutory Funds—			
Ordinary Department	447,813	..	447,813
Industrial Department	96,770	..	96,770
Total	544,583	..	544,583
Funds in respect of Other Classes of Business ..	..	684	684
General Reserves	12,133	1,030	13,163
Profit and Loss Account Balance	..	61	61
Total, Shareholders' Capital, Assurance Funds and Reserves	556,716	4,170	560,886
Other Liabilities—			
Deposits	615	834	1,449
Staff Provident and Superannuation Funds ..	131	317	448
Claims admitted or intimated but not paid ..	6,713	64	6,777
Annuities due but not paid	7	..	7
Premiums Paid in Advance and in Suspense ..	813	9	822
Sundry Creditors	1,872	82	1,954
Bank Overdraft	1,221	21	1,242
Reserves and Provisions for Taxation ..	1,849	143	1,992
Other Liabilities	330	7	337
Total Liabilities	570,267	5,647	575,914

The following table furnishes details of the total assets of life assurance offices for the year 1950 :—

ORDINARY AND INDUSTRIAL LIFE ASSURANCE : TOTAL ASSETS, 1950.

(£'000.)

Item.	Life Assurance Business.	Other Classes of Business.	Total.	Amount of Total Assets held in Australia.
Fixed Assets—				
Office Premises	11,166	207	11,373	8,294
Other Freehold and Leasehold Property ..	8,457	56	8,513	5,288
Office Furniture, Fittings and Equipment and Motor Vehicles	398	31	429	325
Total Fixed Assets	20,021	294	20,315	13,907
Loans—				
On Mortgage	107,399	133	107,532	82,793
On Debentures and Shares	1,185	1	1,186	1,178
On Policies of the company including Advances of Premiums	23,504	..	23,504	17,071
On Life Interests and Reversions ..	165	4	169	157
On Personal Security	19	10	29	28
Other Loans	9,419	167	9,586	9,578
Total Loans	141,691	315	142,006	110,805
Investments—				
Government Securities—				
Australia	219,828	2,886	222,714	209,691
New Zealand	34,895	100	34,995	553
Great Britain	6,158	..	6,158	..
Other British Dominions	6,267	5	6,272	..
Securities of Local and Semi-Governmental Bodies	89,273	117	89,390	63,087
Debentures	12,554	495	13,049	12,208
Preference Shares	11,183	27	11,210	10,354
Ordinary Shares	11,114	412	11,526	10,310
Holdings in Controlled Companies ..	2,463	332	2,795	2,563
Life Interests and Reversions purchased ..	37	..	37	36
Other Investments	922	..	922	643
Total Investments	394,694	4,374	399,068	309,445
Cash on Deposit, Current Account and in hand	4,275	47	4,322	3,585
Other Assets—				
Outstanding Premiums	2,577	9	2,586	1,937
Interests, Dividends and Rents accrued and outstanding	4,375	31	4,406	3,323
Sundry Debtors	543	34	577	457
Establishment Account (*a*)	152	534	686	665
Other Assets	1,939	9	1,948	1,173
Total Assets	570,267	5,647	575,914	445,297

(*a*) Includes goodwill and other intangible assets.

(iii) *Australian Assets.* Details of Australian assets for the years 1939 and 1946 to 1950 are set out in detail in the following table :—

ORDINARY AND INDUSTRIAL LIFE ASSURANCE(*a*) : AUSTRALIAN ASSETS.

(£'000.)

Particulars.	1939.	1946.	1947. (*b*)	1948. (*b*)	1949. (*b*)	1950. (*b*)
Landed and house property . .	12,823	(*c*)	12,845	12,943	13,436	13,582
Government and municipal securities	115,712	238,335	256,777	270,988	278,354	273,331
Life interests and reversions . .	234	(*c*)	75	37	38	36
Other investments . .	6,466	(*c*)	11,747	17,176	25,573	36,078
Loans on mortgages . .	61,720	48,349	47,077	51,954	60,941	82,793
Loans on companies' policies	22,445	15,965	15,843	16,141	16,669	17,071
Other loans	(*d*)	(*c*)	3,598	4,108	5,184	10,941
Outstanding premiums . .	1,087	(*c*)	1,401	1,542	1,642	1,937
Outstanding interest, dividends and rents . .	1,811	(*c*)	2,863	3,025	3,116	3,323
Cash	2,399	(*c*)	2,882	3,295	4,406	3,585
Establishment and organization accounts(*e*) . .	1,101	975	942	674	674	665
All other assets	1,718	29,841	1,065	1,244	1,539	1,955
Total Australian Assets	227,516	333,465	357,115	383,127	411,902	445,297

(*a*) Life assurance and other classes of business. (*b*) Assets held in Australia. (*c*) Not available separately; included with other assets. (*d*) Included with other investments. (*e*) Includes goodwill and other intangible assets.

9. **Loans.**—In the following table details are given of new loans granted by life assurance companies during each of the years ended 31st December, 1947 to 1951. The information has been compiled from monthly returns furnished by each company. New loans granted by the Government Insurance Office of New South Wales and the Queensland State Government Insurance Office are not included. Advances of premiums are also excluded.

LIFE ASSURANCE COMPANIES(*a*) : NEW LOANS GRANTED.(*b*)

(£'000.)

Particulars.	1947.	1948.	1949.	1950.	1951.
			CLASS OF SECURITY.		
Mortgage of Real Estate . .	6,520	11,206	17,177	35,677	41,132
Companies' Policies . .	1,842	2,025	2,263	2,583	2,930
Other	1,716	2,822	3,034	4,211	7,298
Total	10,078	16,053	22,474	42,471	51,360
			STATE, ETC.(*c*)		
New South Wales . .	5,040	9,230	13,108	21,176	26,596
Victoria	2,412	3,890	5,651	16,651	16,813
Queensland	1,401	1,612	1,447	1,915	3,325
South Australia	587	664	796	1,419	1,641
Western Australia . .	522	467	1,106	894	2,075
Tasmania	113	183	359	391	873
Aust. Cap. Territory . .	3	7	7	25	37
Total	10,078	16,053	22,474	42,471	51,360

(*a*) Excludes Government Insurance Office of New South Wales and Queensland State Government Insurance office. (*b*) Excludes Advances of Premiums. (*c*) State, etc. of location of mortgage, registration of policy, or residence of borrower.

§ 3. Fire, Marine and General Insurance.

1. **Australasian Companies.**—The statistical information in this paragraph has been extracted from the *Australasian Insurance and Banking Record.* The following table shows, for the years 1938–39 and 1945–46 to 1949–50, particulars of the revenue and expenditure of a group of insurance companies having their head offices either in Australia, New Zealand or Fiji.

FIRE, MARINE AND GENERAL INSURANCE COMPANIES : SUMMARY OF REVENUE AND EXPENDITURE.

Particulars.	1938–39.	1945–46.	1946–47.	1947–48.	1948–49.	1949–50.
No. of companies	40	43	43	43	47	44
	£'000.	£'000.	£'000.	£'000.	£'000.	£'000.
Premiums, less reinsurances	9,708	13,246	15,472	19,363	21,816	24,008
Losses	5,417	7,031	8,056	10,437	11,502	12,585
Expenses, commission and taxes	2,994	4,633	4,928	5,720	6,991	7,880
Transfer to Reserve for Unearned Premiums ..	(*a*)	(*a*)	(*a*)	(*a*)	1,335	1,526
Underwriting Profit ..	(*b*) 1,297	(*b*) 1,582	(*b*) 2,488	(*b*) 3,206	1,988	2,017
Interest, rent, etc. ..	1,011	1,108	1,141	1,181	1,257	1,360
Total surplus	2,308	2,690	3,629	4,387	3,245	3,377
Dividends and bonuses paid	709	1,036	1,102	1,248	1,470	1,755

(*a*) Not available. (*b*) Trade surplus. No provision has been made for transfers to Reserve for Unearned Premiums.

2. **Aggregate Australian Business.**—(i) *General.* While the foregoing statements relate only to those companies whose head offices are located in Australia, New Zealand or Fiji, the following particulars, which are somewhat restricted in the range of information, are in respect of all companies operating in Australia. The statistics in this paragraph conform substantially to the following definitions and should be interpreted in accordance therewith.

(*a*) Premiums represent the full amount receivable in respect of policies issued and renewed in the year, less returns, rebates and bonuses paid or credited to policy-holders during the year. They are not adjusted to provide for premiums unearned at the end of the year and consequently the amounts differ from " earned premium income " appropriate to the year. When business is increasing, as in recent years, premiums receivable (as shown in the statistics) are greater than " earned premium income " appropriate to the year. The converse applies when business is declining.

(*b*) Claims or losses include provision for outstanding claims and represent claims or losses incurred in the year. Salvage and other amounts recoverable have been deducted.

(*c*) Contributions to Fire Brigades, Commission and Agents' Charges, and Expenses of Management represent mainly charges paid during the year.

(*d*) Taxation represents mainly payments made during the year, and includes income tax, pay-roll tax, licence fees, stamp duty (where paid by the company), etc. Income tax paid during the year is based on the income of earlier years.

The tables contain selected items of statistics and the information shown is not suitable for the construction of a " profit and loss " statement or " revenue " account.

In cases where the business is underwritten in one State and the risk is situated in another the business is included in the State in which the policy was issued.

During 1950–51 (1949–50) revenue from premiums amounted to £57,949,000 (£46,732,000) and from the net interest on investments, etc., to £2,087,000 (£1,801,000), totalling £60,036,000 (£48,533,000). Expenditure on losses amounted to £27,405.000 (£21,168,000), contributions to Fire Brigades £1,402.000 (£1,038,000), commission and agents' charges £6,102,000 (£4,945,000), expenses of management £9,731,000 (£7,917.000) and taxation £2,460,000 (£1,978,000), a total of £47,100,000 (£37,046,000).

(ii) *States.* The following table shows, for each State, the aggregate premium income less reinsurances and returns, and claims paid less reinsurances, for all classes of insurance other than life for the years 1938–39 and 1946–47 to 1950–51.

FIRE, MARINE AND GENERAL INSURANCE : PREMIUMS AND LOSSES—STATES.

(£'000.)

State.	1938–39.	1946–47.	1947–48.	1948–49.	1949–50.	1950–51.
GROSS PREMIUMS, LESS REINSURANCES AND RETURNS.						
New South Wales ..	6,943	10,434	13,356	15,935	18,797	23,214
Victoria	4,505	7,115	9,406	11,994	14,579	18,024
Queensland	2,327	2,787	3,406	4,557	5,422	6,755
South Australia	1,245	1,666	2,170	2,861	3,637	4,630
Western Australia ..	1,373	1,751	2,094	2,536	3,141	3,911
Tasmania	457	653	838	999	1,156	1,415
Total	16,850	24,406	31,270	38,882	46,732	57,949
GROSS CLAIMS OR LOSSES, LESS AMOUNTS RECOVERABLE.						
New South Wales ..	3,842	5,182	7,441	8,278	9,109	11,156
Victoria	2,194	3,010	4,470	5,494	6,465	9,042
Queensland	1,071	1,807	2,032	2,367	2,401	2,658
South Australia	487	675	1,063	1,357	1,357	1,851
Western Australia ..	731	869	1,044	1,027	1,365	1,912
Tasmania	204	219	303	375	471	786
Total	8,529	11,762	16,353	18,898	21,168	27,405

NOTE.—*See* footnotes to next table.

(iii) *Classes of Insurance.* The following statement shows premiums and losses in respect of the principal classes of risks, for the years 1938–39 and 1946–47 to 1950–51 :—

FIRE, MARINE AND GENERAL INSURANCE : PREMIUMS AND LOSSES—PRINCIPAL CLASSES OF RISK, AUSTRALIA.

(£'000.)

Class of Risk.	1938–39.	1946–47.	1947–48.	1948–49.	1949–50.	1950–51.
GROSS PREMIUMS, LESS REINSURANCES AND RETURNS.						
Fire	5,597	7,775	9,074	10,743	12,343	14,763
Workers' Compensation(*a*) ..	4,361	6,283	8,060	10,066	11,556	13,378
Motor Vehicle—						
Compulsory Third Party ..	3,848	1,143	1,436	1,832	2,383	3,040
Other		2,865	4,234	6,252	8,236	11,920
Marine	1,018	(*b*) 2,367	(*b*) 3,026	(*b*) 3,635	4,296	5,302
Personal Accident	554	(*c*)	(*c*)	1,012	1,188	1,541
All Other	1,472	3,973	5,440	5,342	6,730	8,005
Total	16,850	24,406	31,270	38,882	46,732	57,949
GROSS CLAIMS OR LOSSES, LESS AMOUNTS RECOVERABLE.						
Fire	2,223	2,101	2,414	2,951	2,430	4,197
Workers' Compensation(*a*) ..	2,972	4,799	5,751	5,920	6,292	6,784
Motor Vehicle—						
Compulsory Third Party ..	2,324	1,060	1,493	2,014	2,695	3,372
Other		1,954	2,619	3,528	4,970	7,867
Marine	243	(*b*) 638	(*b*) 1,145	(*b*) 1,248	1,784	2,244
Personal Accident	264	(*c*)	(*c*)	349	412	514
All Other	503	1,210	2,931	2,888	2,585	2,427
Total	8,529	11,762	16,353	18,808	21,168	27,405

(*a*) From 1946–47 excludes Workmen's Compensation Insurance in coal-mining industry in New South Wales. (*b*) Excludes business of Commonwealth Marine War Risks Insurance Board (*see* Official Year Book No. 38, pp. 753–4). (*c*) Included with All Other.

The volume of business measured by the amount of premium income shows that fire insurance represented about 26.4 per cent. of the total business during 1949–50 and 25.5 per cent. during 1950–51, workers' compensation 24.7 per cent. during 1949–50 and 23.1 per cent. during 1950–51, and motor vehicles (including compulsory third party insurance) 22.7 per cent. in 1949–50 and 25.8 per cent. in 1950–51. Marine insurance constituted 9.2 per cent. in each year.

E. FRIENDLY SOCIETIES.

1. **General.**—The total membership of friendly societies in Australia is over 600,000, but as certain benefits, such as medical attendance and free medicines, and in many cases funeral expenses, are granted to members' families as well as to members themselves, this figure must, even when due allowance is made for young and unmarried members, be more than doubled to arrive at an estimate of the number of persons who receive some direct benefit from these societies. Legislation has conferred certain privileges on friendly societies, but, on the other hand, it insists on their registration, and it is the duty of the Registrars in the various States, prior to registering a new society, to see that its proposed rules conform to the law, and that the scale of contribution is sufficient to provide the promised benefits. Societies are obliged to forward to the Registrar annual returns about their membership and their finances, and reports are published in most of the States dealing with the returns received.

2. **Number of Societies, Lodges and Members.**—The number of different societies and lodges, the total number of benefit members at the end of the year 1949–50 and their average number during the year are shown in the following table :—

FRIENDLY SOCIETIES : SOCIETIES, LODGES AND MEMBERS, 1949–50.

State.	Registered Friendly Societies.	Branches.	Benefit Members at End of Year.	Average Benefit Members during the Year.
New South Wales (*a*) ..	33	2,299	223,296	189,303
Victoria (*b*)	112	1,449	200,131	201,714
Queensland	25	549	67,858	68,444
South Australia (*c*) ..	17	(*d*) 850	75,168	75,964
Western Australia (*c*) ..	13	315	29,092	29,416
Tasmania (*e*)	20	167	20,657	21,310
Total	..	5,629	616,202	586,151

(*a*) Includes branches in the Australian Capital Territory; excludes 22 miscellaneous societies consisting of Medical Institutes, Dispensaries and Accident and Burial Societies. (*b*) Excludes Dispensaries, Juvenile Branches and members contributing to medical benefits only. (*c*) Excludes Juvenile Branches. (*d*) Societies containing male and female branches counted as two branches. (*e*) Year 1950.

3. **Sickness and Death Returns.**—Sick pay is generally granted for a number of months at full rates, then for a period at half rates, and in some societies is finally reduced to quarter rates. The following table shows the total number of members who received sick pay during the year, the number of weeks in the aggregate for which they received

pay, and the average per member sick, and, further, the number of benefit members who died during the year, together with the proportion of deaths per thousand average members :—

FRIENDLY SOCIETIES : SICKNESS AND DEATH RETURNS, 1949–50.

State.	Members who received Sick Pay.	Total Weeks Sick Pay granted.	Average Weeks per Member sick.	Benefit Members.(a)	
				Deaths.	Proportion of Deaths per 1,000 (Average).
New South Wales	(b)	(b)	(b)	(b)	(b)
Victoria..	44,565	493,140	11.07	2,506	12.42
Queensland	12,625	140,421	11.12	975	14.25
South Australia	17,208	199,398	11.59	964	12.69
Western Australia ..	6,155	66,833	10.86	258	8.77
Tasmania (c)	3,316	41,920	12.64	321	15.06
Total	(b)	(b)	(b)	(b)	(b)

(a) Excludes registered wives. (b) Not available. (c) Year 1950.

4. **Revenue and Expenditure.**—(i) *Revenue.* The financial returns are not prepared in the same way in each State, but an attempt has been made in the following table to group the revenue under the main headings :—

FRIENDLY SOCIETIES : REVENUE, 1949–50.

(£.)

State.	Entrance Fees, Members' Contributions and Levies.	Interest, Dividends and Rents.	All other Revenue.	Total Revenue.
New South Wales	1,052,419	202,934	138,658	1,394,011
Victoria	1,104,130	304,990	96,029	1,505,149
Queensland	285,241	97,454	(a)	382,695
South Australia	337,215	154,112	26,141	517,468
Western Australia	160,139	32,475	13,926	206,540
Tasmania (b)	95,982	22,413	22,574	140,969
Total	3,035,126	814,378	297,328	4,146,832

(a) Included in Interest, Dividends and Rents. (b) Year 1950.

(ii) *Expenditure.* The returns relating to expenditure are in greater detail than those for revenue and particulars of the major items are shown below.

FRIENDLY SOCIETIES : EXPENDITURE, 1949–50.

(£.)

State.	Sick Pay.	Medical Attendance and Medicine.	Sums payable at Death of Members and Members' Wives.	Administration.	All other Expenditure.	Total Expenditure.
New South Wales ..	277,164	455,491	118,145	227,446	114,439	1,192,685
Victoria	293,212	549,027	64,105	243,646	147,413	1,297,403
Queensland	87,188	130,921	44,163	60,894	(a)	323,166
South Australia ..	102,087	170,026	48,039	64,256	47,002	431,410
Western Australia ..	34,582	81,789	13,064	33,448	5,730	168,553
Tasmania(b)	23,629	45,447	20,695	24,307	15,341	129,419
Total	817,862	1,432,701	308,151	653,997	329,925	3,542,636

(a) Included in administration. (b) Year 1950.

5. **Funds.**—The funds of friendly societies in each State at the end of the year 1949-50 were:—New South Wales, £6,695,000; Victoria, £8,381,000; Queensland, £2,577,000; South Australia, £3,884,000; Western Australia, £967,000; Tasmania, £714,000; total, £23,218,000.

F. PROBATES AND LETTERS OF ADMINISTRATION.

The following particulars give some idea of the number and value of estates of deceased persons in each State for the latest year for which information is available. Owing to differences in legislation in the various States the figures are not entirely comparable.

PROBATES AND LETTERS OF ADMINISTRATION.

Particulars.		New South Wales. 1950-51. (a)	Victoria. 1950.	Queensland. 1949-50.	South Australia. 1950.	Western Australia. 1950.	Tasmania. 1949. (b)
Probates—							
Estates	No.	16,108	9,190	1,815	2,305	1,857	879
Gross value ..	£	(c)	(d)	9,196,137	10,381,665	6,682,350	3,686,890
Net Value ..	£	58,508,485	(d)	(c)	9,593,446	6,156,073	3,403,017
Letters of Administration—							
Estates	No.	(d)	2,327	323	881	331	191
Gross value ..	£	(d)	(d)	833,622	1,166,371	385,121	264,838
Net Value ..	£	(d)	(d)	(c)	1,025,569	348,241	232,863
Total—							
Estates	No.	16,108	11,517	2,138	3,186	2,188	1,070
Gross value ..	£	(c)	44,842,696	10,029,759	11,548,036	7,067,471	3,951,728
Net Value ..	£	58,508,485	42,331,032	(c)	10,719,015	6,504,314	3,635,880

(a) Total estates of deceased persons assessed for death duty. (b) Estates dealt with by Taxation Department. (c) Not available. (d) Not available separately.

G. STATE LOTTERIES AND BETTING.

§ 1. State Lotteries.

State Governments operate lotteries in New South Wales, Queensland and Western Australia. In Tasmania, Tattersall's Lotteries are conducted under Regulations framed under the Gaming Act 1935.

New South Wales State Lotteries commenced in 1932. At present, each ordinary lottery consists of 100,000 tickets at 5s. 6d. each, with prizes totalling £17,750. Each special lottery has 100,000 tickets at 10s. each, with prize money totalling £31,700. Net profits of the lottery are paid to the Consolidated Revenue Fund from which grants are made to hospitals.

In Queensland, the Golden Casket Art Union commenced in 1916 with the specific object of augmenting the funds of the Queensland War Council. Subsequently, Anzac Cottages and Nurses Quarters Funds benefited until 1920, when net profits were paid to the Department of Health and Home Affairs (Hospitals, Motherhood and Child Welfare Trust Fund) and used for the maintenance of hospitals, grants to institutions, and for motherhood and child welfare purposes. A stamp duty is imposed on tickets sold. The proceeds of this are paid to Consolidated Revenue Fund. At present, ordinary tickets are priced at 5s. 6d. each (100,000), special tickets at 10s. each (100,000), with prizes totalling £17,550 and £32,000 respectively.

In Western Australia, lotteries are conducted by the Lotteries Commission under the Lotteries Control Act of 1932. Profits are paid by the Commission to hospitals and other charities. Each lottery comprises 100,000 tickets at 2s. 6d. each, with prizes totalling £6,630.

Details of the Income, Expenditure and Net Profit of the three State Lotteries for the years 1938–39 and 1946–47 to 1950–51 are given in the following table.

STATE LOTTERIES: INCOME, EXPENDITURE AND NET PROFIT.

(£.)

Year ended 30th June—	Income.			Expenditure.				Net Profit.
	Tickets.	Other Income.	Total.	Prizes Allotted.	Taxes.	Administration and Other.	Total.	
NEW SOUTH WALES STATE LOTTERY.								
1939	2,388,750	18	2,388,768	1,500,059	..	55,674	1,555,733	833,035
1947	4,230,000	249	4,230,249	2,628,050	..	87,468	2,715,518	1,514,731
1948	5,660,000	219	5,660,219	3,607,300	..	112,155	3,719,455	1,940,764
1949	6,312,500	144	6,312,644	4,024,555	..	135,981	4,160,536	2,152,108
1950	6,990,000	336	6,990,336	4,456,505	..	151,882	4,608,387	2,381,949
1951	7,867,500	233	7,867,733	5,015,255	..	194,819	5,210,074	2,657,659
QUEENSLAND GOLDEN CASKET ART UNION.								
1939	1,902,500	2,626	1,905,126	1,217,800	95,125	146,907	1,459,832	445,294
1947	3,090,000	1,391	3,091,391	1,973,800	154,500	179,735	2,308,035	783,356
1948	3,360,000	1,373	3,361,373	2,146,200	168,000	196,567	2,510,767	850,606
1949	3,790,000	1,636	3,791,636	2,420,800	189,500	223,485	2,833,785	957,851
1950	3,972,500	1,794	3,974,294	2,537,450	198,625	236,092	2,972,167	1,002,127
1951	4,265,000	2,484	4,267,484	2,724,300	213,250	253,132	3,190,682	1,076,802
WESTERN AUSTRALIAN STATE LOTTERY.								
1939	238,680	..	238,680	127,389	..	33,432	160,821	77,859
1947	587,500	..	587,500	311,610	..	82,731	394,341	193,159
1948	687,490	..	687,490	364,650	..	94,697	459,347	228,143
1949	749,981	..	749,981	397,800	..	103,813	501,613	248,368
1950	787,470	..	787,470	417,690	..	108,876	526,566	260,904
1951	924,965	..	924,965	490,620	..	127,731	618,351	306,614

§ 2. Totalizator Investments.

Estimates of totalizator investments and investments with licensed bookmakers for the years 1938–39 and 1946–47 to 1950–51 are given in the following table :—

TOTALIZATOR INVESTMENTS AND INVESTMENTS WITH LICENSED BOOKMAKERS.

(£'000.)

Year ended 30th June—	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Total.
TOTALIZATOR INVESTMENTS.(*a*)							
1939	1,731	2,732	722	630	762	339	6,916
1947	7,224	6,590	933	1,790	1,976	780	19,293
1948	8,544	7,753	929	1,682	2,225	864	21,997
1949	8,742	9,012	973	1,736	2,333	824	23,620
1950	9,702	9,457	1,945	1,746	2,382	950	26,182
1951	11,550	10,756	2,249	1,966	2,718	936	30,175
INVESTMENTS WITH LICENSED BOOKMAKERS.(*b*)							
1939	21,379	(*c*)	(*c*)	7,640	(*c*)	(*d*) 1,093	(*c*)
1947	55,381	44,000	(*c*)	14,683	(*c*)	(*d*) 4,888	(*c*)
1948	65,739	46,000	(*c*)	17,007	(*c*)	(*e*) 3,221	(*c*)
1949	68,183	49,000	(*c*)	19,053	(*c*)	(*f*) 5,940	(*c*)
1950	74,664	50,000	(*c*)	21,272	(*c*)	(*f*) 6,389	(*c*)
1951	82,073	51,000	(*c*)	22,857	(*c*)	(*f*) 7,223	(*c*)

(*a*) Estimated from taxes on totalizators. (*b*) Estimated from taxes on betting with licensed bookmakers. (*c*) Not available. (*d*) Year ended 31st December. (*e*) Seven months ended 31st July, 1948. (*f*) Year ended 31st July.

H. GOVERNMENT, SEMI-GOVERNMENTAL AND PARLIAMENTARY PENSION AND SUPERANNUATION SCHEMES.

§ 1. Government and Semi-Governmental Pension and Superannuation Schemes.

The Commonwealth and all State Governments have established pension or superannuation schemes for their employees. These schemes are operated through funds to which both the Government and the employees make contributions. Employees of semi-governmental authorities are in some cases covered by the Commonwealth or State Government scheme and in other cases by a separate scheme of the authority.

In the following table aggregate details are given for the year 1950–51, of the receipts, expenditure, accumulated funds and number of contributors and pensioners of the Commonwealth and State Government and main semi-governmental schemes. The funds included are :—

(*a*) *Commonwealth.*—The Superannuation Fund and Defence Forces Retirement Benefits Fund.

(*b*) *New South Wales.*—State Superannuation Fund, Government Railways Superannuation Fund and Police Superannuation and Reward Fund.

(*c*) *Victoria.*—The Superannuation Fund, Police Superannuation Fund, Police Pensions Fund, Melbourne Harbour Trust Superannuation Account, Melbourne and Metropolitan Board of Works Superannuation Fund, Electricity Provident Fund, Metropolitan Fire Brigades Board Superannuation Fund, Country Fire Authority Superannuation Fund and Port Phillip Pilots' Sick and Superannuation Fund.

(*d*) *Queensland.*—Public Service Superannuation Fund and Police Superannuation Fund.

(*e*) *South Australia.*—South Australian Superannuation Fund, Police Pensions Fund and Public Service Superannuation Fund.

(*f*) *Western Australia.*—The Superannuation Fund.

(*g*) *Tasmania.*—Public Service Superannuation Fund (Old and New Funds), Police Provident Fund and State Teachers' Superannuation Fund.

GOVERNMENT AND SEMI-GOVERNMENTAL PENSION AND SUPERANNUATION SCHEMES, 1950–51.

Particulars.	C'wlth.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Total.
Receipts—	£'000.	£'000.	£'000.	£'000.	£'000.	£'000.	£'000.	£'000.
Contributions—								
Employees ..	3,548	2,057	1,348	198	372	194	187	7,904
Government ..	1,694	4,097	2,058	86	471	371	140	8,917
Interest	759	910	647	204	208	79	46	2,853
Other	30	71	2	5	5	..	1	114
Total	6,031	7,135	4,055	493	1,056	644	374	19,788
Expenditure—								
Pension Payments ..	2,028	3,551	2,105	240	577	404	146	9,051
Gratuities or Rewards	175	31	124	2	16	..	23	371
Refund of Contributions	338	302	161	74	58	33	27	993
Other	2	36	1	..	17	..	4	60
Total	2,543	3,920	2,391	316	668	437	200	10,475
Funds at end of Year ..	25,405	26,879	19,760	4,216	5,887	2,410	1,404	85,961
Contributors at end of Year—	No.	No.	No.	No.	No.	No.	No.	No.
Males	101,484	84.375	36,552	9,415	10,845	6,884	4,717	265,215
Females			4,742	3,256	1,315	663	967	
Total	101,484	84,375	41.294	12,671	12,160	7,547	5,684	265,215
Pensioners at end of year—								
Males	6,574	21,527	7,110	911	2,486	2,174	768	59,274
Female ex-employees ..	643		992	219	401	130		
Widows	4,575		5,134	235	2,089	880	332	
Children	928		614	30	213	201	108	
Total	12,720	21,527	13,850	1,395	5,189	3,385	1,208	59,274

(*a*) Not available.

For details of the individual funds summarized above *see Finance Bulletin* No. 42 issued by this Bureau.

§ 2. Parliamentary Pension and Superannuation Schemes.

Pension and superannuation schemes have been established for members of the Commonwealth and all State Parliaments except the Tasmanian. Full details of these schemes are given in pages 91 to 99 of Official Year Book No. 38, and on page 77 of this issue is a table showing their finances for 1948–49 and 1949–50. All the schemes are operated through funds to which the members of Parliament and the Commonwealth or States contribute. Details of the receipts, expenditure, funds and number of contributors and pensioners for the year 1950–51 are given in the following table. :—

PARLIAMENTARY PENSION AND SUPERANNUATION SCHEMES, 1950–51.

Particulars.	C'wlth.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Total.
	£	£	£	£	£	£	£
Receipts—							
Contributions—							
Members	28,452	7,717	5,113	7,474	3,440	3,786	55,982
Government	11,165	1,126	1,397	7,298	6,190	..	27,176
Interest	1,061	911	..	713	652	161	3,498
Other	..	..	..	..	..	..	..
Total	40,678	9,754	6,510	15,485	10,282	3,947	86,656
Expenditure—							
Pension Payments	5,126	3,966	5,129	1,953	704	2,040	18,918
Retiring Allowances	12,037	..	3,900	..	..	..	15,937
Refund of Contributions ..	..	274	..	211	154	61	700
Other	..	..	..	..	60	..	60
Total	17,163	4,240	9,029	2,164	918	2,101	35,615
Funds at end of Year	55,037	32,893	..	30,359	25,245	6,894	150,428
	No.	No.	No.	No.	No.	No.	No.
Contributors at end of Year ..	183	100	99	71	59	80	592
Pensioners at end of Year—							
Ex-members	12	9	(*a*)	7	..	11	(*a*)
Widows	..	6	(*a*)	..	4	..	(*a*)
Total	12	15	(*a*)	7	4	11	(*a*)

(*a*) Not available.

CHAPTER XVII.

PUBLIC FINANCE.

NOTE.—The subject of "Public Finance" is dealt with in this Chapter under the two major divisions of Commonwealth Finance and State Finance. The close financial relations between the Commonwealth and States, however, particularly since the Financial Agreement has been in operation, demand a combination of these two divisions under the heading of Commonwealth and State Finance. Under the Financial Agreement the Commonwealth assumed the liability to bondholders for the States' Debts existing at the date of the agreement and now arranges for all borrowings for and on behalf of the Commonwealth or any State and for all conversions, renewals, redemptions and consolidations of the Public Debts of the Commonwealth and the States. In view of this it has been found convenient to deal with the Commonwealth and State Public Debt in a separate division.

The subject of income taxes is also dealt with in a separate division.

A. COMMONWEALTH FINANCE.

§ 1. General.

1. **Financial Provisions of the Constitution.**—The main provisions of the Constitution relating to the initiation and development of the financial system of the Commonwealth are contained in Sections 81 to 105A of the Commonwealth Constitution (*see* pages 20–23 of this issue). Two other sections which have a most important bearing on questions of Commonwealth finance are Sections 69 and 51.

Section 69 provides for the transfer to the Commonwealth from the States of certain specified departments, and Section 51, in outlining the powers of the Commonwealth Parliament, implies the transfer or creation of other departments. Section 87 deals with the financial relations between the Commonwealth and the States. These matters have been treated in previous issues of the Official Year Book and on pages 788-92 of this issue a summary is given of the present provisions for Commonwealth financial assistance to the States.

The majority of the tables relating to Commonwealth Finance have been compiled from the annual Budget Papers as presented to Parliament by the Treasurer of the Commonwealth.

2. **Accounts of Commonwealth Government.**—The Commonwealth Government, like the State Governments, bases its accounts upon three funds, the Consolidated Revenue Fund, the Trust Fund and the Loan Fund, the last-mentioned fund coming into existence in the financial year 1911–12.

§ 2. Consolidated Revenue Fund.

Division I.—Nature of Fund.

1. **Provisions of the Constitution.**—The provisions made for the formation of a Commonwealth Consolidated Revenue Fund, and the means to be adopted for operating on the fund, are contained in Sections 81 to 83 of the Constitution (*see* page 20 of this issue).

2. **Annual Results of Transactions.**—The following statement shows, for the period 1938–39 to 1950–51, the receipts, expenditure and excess receipts or deficiency for each year, and the expenditure from the excess receipts.

The receipts and expenditure on account of the balance of interest on States' Debts payable by the States to the Commonwealth under the Financial Agreement have been excluded.

COMMONWEALTH CONSOLIDATED REVENUE FUND : RECEIPTS, EXPENDITURE, ETC.

(£'000.)

Year.	Receipts.	Expenditure.	Excess Receipts.	Expenditure from Excess Receipts.		
				Defence Equipment.	Reserve for War Gratuity.	Total.
1938–39	95,065	94,438	627	3,495	..	3,495
1939–40	111,914	108,986	2,928	627	..	627
1940–41	150,482	150,482	..	2,928	..	2,928
1941–42	210,041	210,041	..	..	..	..
1942–43	294,459	294,459	..	..	..	..
1943–44	342,188	342,188	..	..	..	..
1944–45	376,854	376,854	..	..	..	..
1945–46	390,780	390,780	..	..	..	..
1946–47	431,256	431,256	..	..	..	..
1947–48	465,905	464,485	1,420	..	..	..
1948–49	554,377	554,377	..	..	1,420	1,420
1949–50	580,652	580,652	..	..	..	..
1950–51	841,792	841,792	..	..	..	..

The Consolidated Revenue Fund for the financial years 1940–41 to 1946–47 and 1948–49 to 1950–51 was balanced, as all available revenue after charging expenditure on ordinary services was used for defence, war and repatriation purposes.

Division II.—Revenue.

1. **General.**—The following table furnishes details of the revenue from each source and the amount per head of population under each of the main headings during the years 1938–39 and 1946–47 to 1950–51 :—

COMMONWEALTH CONSOLIDATED REVENUE FUND : SOURCES OF REVENUE. (£'000.)

Source.	1938–39.	1946–47.	1947–48.	1948–49.	1949–50.	1950–51.
Taxation	74,111	385,616	422,413	490,813	518,959	777,187
Proportion of Total %	78.0	89.4	90.7	88.5	89.4	92.3
Per head of population ..	£10 13 9	£51 5 9	£55 5 9	£62 18 8	£64 9 5	£93 10 2
Business Undertakings ..	17,892	30,957	32,580	34,912	42,087	48,792
Proportion of Total %	18.8	7.2	7.0	6.3	7.3	5.8
Per head of population ..	£2 11 9	£4 2 4	£4 5 3	£4 9 6	£5 4 7	£5 17 5
Territories (*a*)	356	570	666	738	926	1,150
Proportion of Total %	0.4	0.1	0.1	0.1	0.1	0.1
Per head of population ..	£0 1 0	£0 1 6	£0 1 9	£0 1 11	£0 2 3	£0 2 9
Other Revenue—						
Interest, etc.	1,144	1,092	1,296	1,532	1,773	2,521
Coinage	128	..	497	635	466	499
Defence	151	239	216	355	541	702
Civil Aviation	6	961	1,595	1,998	2,870	3,504
Health	18	16	14	20	25	31
Patents, Trade Marks, etc. ..	68	112	124	128	124	128
Bankruptcy	31	15	16	20	22	23
Wool Committee Operations Surplus	..	7,075	125	103	..	..
Commerce and Agriculture ..	158	23	−22	235	659	1,174
Shipping and Transport ..		148	176	478	380	517
Net Profit on Australian Note Issue	767	3,792	4,087	4,460	4,183	3,394
Surplus Balances of Trust Accounts	..	..	..	17,000	6,700	..
Other	235	640	2,122	950	937	2,170
Total	2,706	14,113	10,246	27,914	18,680	14,663
Proportion of Total %	2.8	3.3	2.2	5.0	3.2	1.8
Per head of population ..	£0 7 9	£1 17 7	£1 6 10	£3 11 7	£2 6 5	£1 15 4
Grand Total	95,065	431,256	465,905	554,377	580,652	841,792
Per head of population ..	£13 14 3	£57 7 2	£60 19 7	£71 1 8	£72 2 8	£101 5 8

(*a*) Excludes Railways.

NOTE.—Minus sign (−) indicates an excess of refunds.

A graphical representation of the revenue and expenditure of the Commonwealth Consolidated Revenue Fund appears on page 805.

2. **Taxation.**—(i) *Total Collections.* (a) *Amount.* Collections under each heading for the years 1938–39 and 1946–47 to 1950–51 are shown below :—

COMMONWEALTH TAXATION : TOTAL NET COLLECTIONS.
(£'000.)

Heading.	1938–39.	1946–47.	1947–48.	1948–49.	1949–50.	1950–51.
Customs	31,161	45,871	57,597	63,465	77,726	91,921
Excise	16,472	56,375	58,008	62,735	66,157	73,083
Sales Tax	9,308	36,265	34,729	39,029	42,425	57,173
Flour Tax (a)	1,809	1,747	985	1	..	..
Land Tax	1,489	3,679	3,641	3,032	4,210	3,591
Income Taxes (b)	11,883	156,765	161,452	182,092	179,094	267,999
Social Services Contribution ..	..	51,000	71,418	90,255	100,560	73,958
Wool Deduction	..	..	..	..	..	109,531
Pay-roll Tax	..	13,647	16,595	19,803	22,728	28,721
Gold Tax	..	556	11	—5	—9	..
Estate Duty	1,915	4,019	4,555	4,740	6,054	6,401
Gift Duty	..	545	780	582	745	1,044
Entertainments Tax ..	..	5,138	5,198	5,299	4,698	5,148
Wool Levy (a)	74	12	..	..	..	..
Wool Contributory Charge (a)	..	4,497	1,424	1,029	1,439	44,844
Wheat Tax and Export Charge (a)	..	5,500	5,730	18,086	12,633	13,353
Stevedoring Industry Charge (a)	..	..	260	670	499	420
Total Taxation ..	74,111	385,616	422,413	490,813	518,959	777,187
Proportion of Total Revenue .. %	78.0	89.4	90.7	88.5	89.4	92.3

(a) Paid to Trust Fund for purposes of industry concerned. (b) Includes War-time (Company) Tax, Super Tax and Undistributed Profits Tax.

NOTE.—Minus sign (—) indicates an excess of refunds.

(b) *Proportion of each Class on Total Collections.* The following table shows the proportion of the total collections represented by returns from each class of taxation for the years 1938–39 and 1946–47 to 1950–51.

COMMONWEALTH TAXATION : PROPORTION OF EACH CLASS ON TOTAL NET COLLECTIONS.
(Per Cent.)

Heading.	1938–39.	1946–47.	1947–48.	1948–49.	1949–50.	1950–51.
Customs	42.1	11.9	13.7	12.9	15.0	11.8
Excise	22.3	14.6	13.7	12.8	12.7	9.4
Sales Tax	12.6	9.4	8.2	8.0	8.2	7.4
Flour Tax	2.4	0.5	0.2	..	..	..
Land Tax	2.0	1.0	0.9	0.6	0.8	0.5
Income Taxes (a)	16.0	40.7	38.2	37.1	34.5	34.4
Social Services Contribution	..	13.2	16.9	18.4	19.4	9.5
Wool Deduction	..	..	..	..	..	14.1
Pay-roll Tax	..	3.6	3.9	4.0	4.4	3.7
Gold Tax	..	0.1	..	..	..	..
Estate Duty	2.6	1.0	1.1	1.0	1.2	0.8
Gift Duty	..	0.1	0.2	0.1	0.1	0.1
Entertainments Tax ..	..	1.3	1.2	1.1	0.9	0.7
Wool Levy	..	..	..	..	..	..
Wool Contributory Charge ..	..	1.2	0.3	0.2	0.3	5.8
Wheat Tax and Export Charge	..	1.4	1.4	3.7	2.4	1.7
Stevedoring Industry Charge	..	..	0.1	0.1	0.1	0.1
Total	100.0	100.0	100.0	100.0	100.0	100.0

(a) *See* footnote (b) to previous table.

(ii) *Customs Revenue.* (*a*) *Classified.* Particulars of net customs receipts for the years 1938–39 and 1946–47 to 1950–51 are shown in the following table :—

COMMONWEALTH CUSTOMS REVENUE : CLASSIFICATION OF NET RECEIPTS.

(£.)

Classes.	1938–39.	1946–47.	1947–48.	1948–49.	1949–50.	1950–51.
Ales, spirits and beverages ..	1,165,503	694,622	940,573	1,171,388	1,462,036	1,890,343
Tobacco and manufactures thereof	3,256,496	7,791,112	10,806,741	14,611,978	17,657,104	20,829,735
Sugar	7,238	2,602	7,122	3,476	2,414	7,147
Agricultural products and groceries	1,365,938	1,099,924	1,442,481	1,301,080	1,514,833	1,690,366
Textiles and attire	2,801,103	3,368,675	5,725,686	6,643,814	7,065,986	9,893,565
Metals and machinery ..	2,385,882	2,387,402	4,418,430	5,782,255	8.439,325	8,573,944
Oils, paints, etc.	9,927,346	16,625,724	16,130,193	17,315,862	19,273,861	23,720,289
Earthenware, etc.	509,980	514,795	1,102,127	1,088,553	1,274,278	1,466,720
Drugs and chemicals ..	309,984	363,858	436.335	321,856	396,641	757.435
Wood, wicker and cane ..	739,057	556,210	686,475	992,481	966,305	488,239
Jewellery and fancy goods ..	480,916	758,058	966,247	1,236,430	1,899,652	2,530,054
Leather and rubber	477,163	593,859	809,650	922,784	1,123,642	1,534,873
Paper and stationery ..	453,548	392,066	765,637	485.037	427,876	544,607
Vehicles	2,061,762	2,091,639	2,691.333	3,938,044	8,734,842	7,803,908
Musical instruments ..	31,589	13,931	50,777	78,220	85,874	123,670
Miscellaneous articles ..	1,023,556	1,446,616	2,788,156	1,825,768	1,261,178	1,625,257
Primage	3,913,578	6,204,238	7,093,468	5,393,474	5,710,760	8,206,361
Special War Duty	..	628,577	−10,492	−6,121	−8,964	−939
Other receipts	249,823	337,177	746,215	358,055	438,021	234,885
Total	31,160,462	45,871,085	57,597,154	63,464,434	77,725,664	91,920,462

NOTE.—Minus sign (—) indicates an excess of refunds.

(*b*) *States.* The following table shows the net Customs Duties collected in each State during the years 1938–39 and 1946–47 to 1950–51.

COMMONWEALTH CUSTOMS REVENUE : NET COLLECTIONS IN EACH STATE.

(£.)

State.	1938–39.	1946–47.	1947–48.	1948–49.	1949–50.	1950–51.
New South Wales (*a*) ..	14,070,130	20,809,795	25,412,111	26,150,146	30,430,775	36,920.352
Victoria	9,970,730	14,615,959	19,029,924	21,293,148	25,957,427	31,119,386
Queensland..	2,977,792	4,286,791	5,338,690	6,474,979	8,306,224	9,765,607
South Australia (*b*)	2,090,020	3,303,044	4,117,100	5,137,827	6,817,390	7,899,270
Western Australia	1,653,906	2,153,351	2,813,807	3,251,449	4,797,482	4,581,938
Tasmania	397,884	702,145	885,522	1,156,885	1,416,366	1,633,909
Total	31,160,462	45,871,085	57,597,154	63,464,434	77,725,664	91,920,462

(*a*) Includes Australian Capital Territory. (*b*) Includes Northern Territory.

(iii) *Excise Revenue.* (*a*) *Classified.* Particulars of the amount of net excise collected under each division during the years 1938–39 and 1946–47 to 1950–51 are given hereunder :—

COMMONWEALTH EXCISE REVENUE : CLASSIFICATION OF NET RECEIPTS.

(£.)

Particulars.	1938–39.	1946–47.	1947–48.	1948–49.	1949–50.	1950–51.
Beer	7,288,579	27,246,527	27,043.700	31,806,511	33,401,987	37,242,686
Spirits	1,604,220	6,101.353	6,719,900	7,023,179	6,926,107	8,129,361
Tobacco	3,867,983	9,881,397	9,930,607	9,621,979	10,229,291	10,759,311
Cigars and cigarettes ..	2,418,723	9,462,084	9,785,760	9,557,745	10,192,194	10,662,141
Cigarette papers	530,868	938,809	1,059,913	807,509	1,002,260	1,166,202
Petrol	581,978	866,508	1,810,476	2,328,192	2,677,483	3,064,516
Matches	81,960	1,364,194	1,304,373	1,200,776	1,200,423	1,212,971
Playing cards	11,432	45,728	58,042	67,017	61,442	62,810
Coal	..	..	..	..	206,910	374,827
Miscellaneous	86,160	468,704	294.715	321,873	258,848	408,211
Total	16,471,903	56,375,304	58,007,486	62,734,781	66,156,945	73,083,036

(*b*) *States.* Net excise collections in each State for the years 1938–39 and 1946–47 to 1950–51 were as follows:—

COMMONWEALTH EXCISE REVENUE : NET COLLECTIONS IN EACH STATE.

(£.)

State.	1938–39.	1946–47.	1947–48.	1948–49.	1949–50.	1950–51.
New South Wales (*a*) ..	6,940,301	27,899,853	22,486,303	25,522,532	26,034,607	29,099,909
Victoria	5,687,832	16,633,229	18,474,650	18,561,279	20,305,985	21,840,802
Queensland	1,538,042	4,342,885	6,601,030	7,101,552	7,317,276	8,271,990
South Australia (*b*)	1,018,148	3,188,665	4,846,428	5,329,031	5,801,286	6,500,282
Western Australia	1,103,481	3,423,347	4,617,625	5,116,978	5,466,975	5,976,631
Tasmania	184,099	887,325	981,450	1,103,409	1,230,816	1,393,422
Total	16,471,903	56,375,304	58,007,486	62,734,781	66,156,945	73,083,036

(*a*) Includes Australian Capital Territory. (*b*) Includes Northern Territory.

(iv) *Other Taxation.* (*a*) *General.* Taxes other than customs and excise are, in general, assessed and collected by the Commissioner of Taxation. The organization comprises an office in each State assessing the returns of taxpayers whose interests are restricted to that State only, and a Central Office assessing taxpayers whose interests are in more than one State. Taxes, however, may be paid to any office, so that the sums actually received by any office do not correspond to the assessments made by that office and frequently differ by very large amounts. For example, the actual receipts of income tax by the Queensland State office may include tax in respect of Central Office or New South Wales assessments, and, therefore, may not be a proper measure of income tax paid on account of income derived in Queensland.

The actual receipts by the various offices are the figures of necessity used by the Treasury for accounting purposes, and may be called the " Treasury " figures. In order to show a more significant picture of the taxation in each State, figures furnished by the Commissioner of Taxation, which refer strictly to the assessments made by the State office concerned, are used in the following tables. The totals of these figures do not quite agree with the total Treasury figures shown on page 761, owing to certain technicalities of accounting. The Taxation Office figures present a fair comparison between States, e.g., in taxation paid per head, but do not give the absolute measure of taxation, because the Central Office collections, which include taxation on account of all States, have not been allocated to the States. In the absence of precise information, it may be assumed, as a rough approximation, that Central Office collections may be divided among States in proportion to State office collections. It is probable, however, that a somewhat larger share is derived from the more populous States, New South Wales and Victoria.

(*b*) *Land Tax.* Commonwealth Land Tax was first imposed on the unimproved value of land in 1910–11. The following table shows the rates of land tax imposed for each assessment year from 1941–42 to 1950–51:—

LAND TAX : RATE OF TAX PER £1 OF TAXABLE VALUE.

(T = Taxable Value.)

(Pence.)

Assessment Year.	Residents.			Absentees.(*a*)				
	If the Taxable Value is from £1 to £75,000—	If the Taxable Value is over £75,000—		If the Taxable Value is from £1 to £80,000—		If the Taxable Value is over £80,000—		
		On £75,000	On excess over £75,000–	On first £5,000–	On excess over £5,000—	On £5,000–	On next £75,000–	On excess over £80,000–
1941–42 to 1950–51 (*b*)	$\left(1 + \frac{T}{18,750}\right)$	5.0	9.0	1.0	$\left(2 + \frac{T-5,000}{18,750}\right)$	1.0	6.0	10.0

(*a*) Absentees are not allowed an exemption of £5,000 granted to residents. (*b*) In addition, if the taxable value exceeds £20,000, there is payable for 1941–42 and subsequent years a super tax equal to the lesser amount of the following :—(i) twenty per cent. of the amount of land tax ; or (ii) one per cent. of the amount by which the taxable value of the land exceeds £20,000.

Under the National Security (Values for Land Tax) Regulations the revaluations of land for the purposes of the Land Tax Assessment Act 1910–1940 were postponed until after the war. Thereby the values of land, or of interests in land, as assessed for the financial year 1939–40, were adopted for the financial year 1940–41 and subsequent years for the duration of the war. Under section 10 of the Defence (Transitional Provisions) Act 1946–1949 the provisions of the National Security (Values for Land Tax) Regulations were incorporated in the Land Tax Assessment Act 1910–1949 and revaluations of land for purposes of the Act were postponed until after the assessment year commencing on 1st July, 1950. A revaluation of land is to be made for the assessment year which commenced on 1st July, 1951.

Land tax receipts in each State and Central Office for the years 1938–39 and 1946–47 to 1950–51 were as follows. The receipts referred to in this table differ slightly from the collections shown on page 761 because some refunds credited before 30th June were not paid until after that date.

LAND TAX RECEIPTS.

(£.)

State, etc.	1938–39.	1946–47.	1947–48.	1948–49.	1949–50.	1950–51.
Central Office ..	525,959	1,500,037	1,460,065	1,164,679	1,995,395	1,525,339
New South Wales ..	509,913	1,202,023	1,189,414	1,041,299	1,206,991	1,182,751
Victoria	290,798	690,824	656,277	551,848	692,263	562,283
Queensland.. ..	29,568	61,604	62,441	60,486	60,557	62,762
South Australia ..	55,280	131,481	118,121	121,967	113,488	129,204
Western Australia ..	63,854	106,695	101,875	96,571	104,187	95,124
Tasmania	12,879	37,114	33,335	32,114	37,742	33,018
Total ..	1,488,251	3,729,778	3,621,528	3,068,964	4,210,623	3,590,481

(c) *Estate Duty.* The Commonwealth Estate Duty was first levied in 1914. Particulars of exemptions and the rates imposed prior to 1940 are given in earlier issues of the Year Book (*see* No. 37, page 614).

Estate duty, under the Estate Duty Assessment Act 1940, is assessed on the net value of the estate less a statutory exemption determined in accordance with the following formula :—(*a*) where the whole of the estate passes to the widow, children or grandchildren of the deceased, the sum of £2,000 decreasing by £1 for every £10 by which the value exceeds £2,000 up to £10,000, and thereafter decreasing by £1 for every £2 by which the value exceeds £10,000 ; (*b*) where no part of the estate passes to the widow, children or grand-children, the sum of £1,000 decreasing by £1 for every £10 by which the value exceeds £1,000 up to £6,000, and thereafter decreasing by £1 for every £8 by which the value exceeds £6,000 ; and (*c*) where part only of the estate passes to the widow, children or grand-children, the statutory exemption is to be calculated proportionately under (*a*) and (*b*).

The rates of duty, which increase as the value of the estate increases are :—£1 to £10,000, 3 per cent. ; £10,001 to £20,000, 3 per cent. to 6 per cent. ; £20,001 to £120,000, 6 per cent. to 26 per cent. ; £120,001 to £500,000, 26 per cent. to 27.9 per cent. ; over £500,000 27.9 per cent.

Particulars of the collections in each State and Central Office for the years 1938–39 and 1946–47 to 1950–51 are shown in the following table. These figures differ slightly from the figures on page 761 as some refunds were credited before 30th June and not paid until after that date.

ESTATE DUTY RECEIPTS.

(£.)

State, etc.	1938–39.	1946–47.	1947–48.	1948–49.	1949–50.	1950–51.
Central Office ..	999,202	1,592,910	2,046,170	1,993,042	2,494,175	2,502,094
New South Wales ..	422,567	790,670	988,152	1,121,094	1,246,580	1,456,107
Victoria	294,406	1,062,204	907,176	1,044,527	1,383,166	1,563,110
Queensland	60,041	248,806	290,778	225,089	438,082	308,343
South Australia ..	82,789	167,436	244,797	191,776	289,800	260,142
Western Australia ..	34,074	84,582	108,453	132,479	153,862	225,486
Tasmania	15,960	55,666	56,352	52,560	47,607	73,208
Northern Territory ..	..	101	*Cr.* 4	471	..	941
Total ..	1,909,039	4,002,375	4,641,874	4,761,038	6,053,272	6,389,431

Particulars of the number and value of estates with duty assessed, for each of the assessment years 1938–39 and 1946–47 to 1950–51, are given in the following table :—

ESTATE DUTY ASSESSMENTS.

Particulars.		1938–39.	1946–47.	1947–48.	1948–49.	1949–50.	1950–51.
Number of Estates ..	..	9,681	10,988	12,082	12,350	13,982	15,680
Gross Value Assessed	£'000	65,699	87,354	95,373	99,717	117,534	134,074
Deductions ..	£'000	12,630	15,292	15,537	16,475	19,219	22,714
Statutory Exemption	£'000	..	12,973	14,166	14,402	16,271	18,175
Dutiable Value ..	£'000	53,069	59,089	65,670	68,840	82,044	93,185
Duty Payable ..	£	2,002,283	4,230,900	4,883,702	4,902,352	5,992,790	6,933,608
Average dutiable value	£	5,482	5,378	5,435	5,574	5,868	5,943
Average duty per estate	£	207	385	404	397	429	442

(*d*) *Gift Duty.* The Gift Duty Assessment Act 1941–1947 and the Gift Duty Act 1941–1947 impose a gift duty on all gifts made after the 29th October, 1941. A gift has been defined as any disposition of property, which is made otherwise than by will, without adequate consideration in money or money's worth.

There is a liability on both the donor and the donee to furnish a return, and both are jointly and severally liable for payment of the duty.

The following rates of duty have been fixed by the Gift Duty Act 1941–1947 :—

Value of all Gifts made within Eighteen Months.	Rate of Duty.
Not exceeding £2,000 (*a*)	Nil
£2,001 (*a*) to £10,000	3%
£10,001 to £20,000	3% to 6%
£20,001 to £120,000	6% to 26%
£120,001 to £500,000	26% to 27·9%
£500,001 and over	27·9%

(*a*) Prior to 3rd June, 1947, no duty was payable if the value of all gifts as defined above did not exceed £500. If the value of all gifts exceeded £500 but did not exceed £10,000 the rate of duty was 3 per cent.

An amendment which operated from 3rd June, 1947 provided that gift duty will not exceed one half of the amount by which the value of the gift exceeds £2,000.

The receipts from gift duty in each State for the years 1946–47 to 1950–51 are shown in the following table. The figures shown in the table differ from those shown on page 701 because certain refunds credited before 30th June were not paid until after that date.

GIFT DUTY RECEIPTS.

(£.)

State, etc.	1946–47.	1947–48.	1948–49.	1949–50.	1950–51.
New South Wales ..	194,946	393,523	261,643	297,354	499,949
Victoria	203,458	199,099	173,159	244,672	296,769
Queensland	43,665	52,504	34,181	45,825	73,177
South Australia	44,328	107,003	64,857	120,729	109,653
Western Australia ..	44,653	24,353	36,653	32,702	51,861
Tasmania	6,542	7,121	10,914	3,899	11,459
Northern Territory ..	86	91	7	..	605
Total	537,678	783,694	581,414	745,181	1,043,473

(*e*) *Income Taxes.* Details of taxes on income are given in Section "E" of this Chapter.

(*f*) *Pay-roll Tax.* The Pay-roll Tax Assessment Act 1941–42 and the Pay-roll Tax Act 1941 imposed a pay-roll tax of 2½ per cent. on all wages in excess of £20 per week paid by an employer after 30th June, 1941. These measures formed part of the Commonwealth scheme of child endowment, the revenue from the tax being designed to provide part of the money required.

Pay-roll tax is collected in a similar manner to sales tax. Employers are required to register and to furnish a monthly return of all wages paid.

The following table shows the receipts from pay-roll tax in each State for the years 1946–47 to 1950–51. The figures shown vary slightly from the collections shown on page 701 because some refunds which were credited before 30th June were not paid until after that date.

PAY-ROLL TAX RECEIPTS.

(£.)

State, etc.	1946–47.	1947–48.	1948–49.	1949–50.	1950–51.
New South Wales ..	5,793,035	7,313,109	8,534,902	9,510,238	12,091,590
Victoria	3,874,667	4,747,145	5,645,022	6,655,413	8,334,834
Queensland	1,609,848	1,876,000	2,356,549	2,713,570	3,392,659
South Australia	1,085,430	1,284,780	1,588,615	1,834,734	2,358,808
Western Australia ..	813,885	919,055	1,119,075	1,326,212	1,685,666
Tasmania	368,412	459,227	538,614	656,254	826,607
Northern Territory ..	8,840	14,100	18,749	22,875	25,947
Total	13,554,117	16,613,416	19,801,526	22,719,296	28,716,111

(*g*) *Gold Tax.* The Gold Tax Collection Act 1939–1940 and the Gold Tax Act 1939 imposed a tax on all gold delivered to the Commonwealth Bank of Australia or to an agent of that Bank, on and after 15th September, 1939, of 50 per cent. of the amount by which the price payable by the Bank for each fine ounce of gold delivered exceeded £9. This tax was suspended from 20th September, 1947, by the Gold Tax Suspension Act 1947. Collections and repayments of tax during the five years 1946–47 to 1950–51 were as follows :—1946–47, £556,435 ; 1947–48, £10,713 ; 1948–49, *Dr.* £4,605 ; 1949–50, *Dr.* £9,217 ; and 1950–51, *Dr.* £182.

(*h*) *Entertainments Tax.* The Entertainments Tax Assessment Act 1942–1946 and Entertainments Tax Act 1942–1949 came into force on 1st October, 1942, following the agreement of the State Governments to the request of the Commonwealth to suspend their entertainments tax legislation for the duration of the war and one year after. This enabled the Commonwealth Government to re-enter this field of taxation. Until 1945–46 the Commonwealth recompensed the States by annual payments of £765,787, an amount equal to that collected by the States during the year 1941–42. Thereafter these payments were discontinued and the agreement that the States should not levy a tax on entertainments was terminated.

The rates of entertainments tax from 1st October, 1949 are shown in the following table. Details of rates operating prior to 1st October, 1949 are given in earlier issues of the Official Year Book (*see* No. 37, page 617).

RATES OF ENTERTAINMENTS TAX OPERATING FROM 1st OCTOBER, 1949.

Amount paid for Admission (excluding amount of Tax). Exceeding—	Amount paid for Admission (excluding amount of Tax). But not exceeding—	Reduced Rates.	Full Rates.
s. d.	*s. d.*	*s. d.*	*s. d.*
	1s. 0d.	Nil	0 2
1 0	1 3	Nil	0 4
1 3	1 6	0 3	0 4
1 6	2 0	0 4	0 5
2 0	2 6	0 5	0 7
2 6	3 0	0 6	0 9
3 0	3 6	0 8	0 10
3 6	4 0	0 9	1 0
4 0	4 6	0 10	1 1
4 6	5 0	0 11	1 3
5 0	5 6	1 1	1 5
5 6	6 0	1 3	1 8
6 0	..	1s. 5d. plus 1½d. for each 6d. (or part thereof) by which the payment for admission exceeds 6s. 6d. (*a*)	1s. 10d. plus 2½d. for each 6d. (or part thereof) by which the payment for admission exceeds 6s. 6d.(*a*)

(*a*) Fractions of a penny in the amount of tax are treated as follows :—¼d. and ½d. are disregarded—¾d. is taken as one penny.

The reduced rates of tax apply to entertainments which consist of one or more of the following items, viz. :—a stage play, a ballet, a performance of music, a lecture, a recitation, a music hall or other variety entertainment, or a circus or travelling show, and to entertainments which consist solely of a game or sport in which human beings are the sole participants and the entertainment is conducted by a society which is not established or carried on for profit. The full rates apply to all other forms of entertainment. Entertainments tax is not charged on admissions to entertainments the proceeds of which are devoted to public, patriotic, philanthropic, religious or charitable purposes or where the entertainment is of an educational or scientific character.

Entertainments tax received during the five years 1946–47 to 1950–51 is shown in the following table. The figures shown in the table differ from those shown on page 761 because certain refunds credited before 30th June were not paid until after that date.

ENTERTAINMENTS TAX RECEIPTS.

(£.)

State, etc.	1946–47.	1947–48.	1948–49.	1949–50.	1950–51.
New South Wales ..	2,141,470	2,189,923	2,225,895	1,958,561	2,156,402
Victoria..	1,534,445	1,571,504	1,600,908	1,430,241	1,523,125
Queensland	664,700	661,314	646,887	580,501	397,979
South Australia	382,004	364,365	400,066	334,762	658,391
Western Australia ..	281,636	278,509	280,958	280,085	291,185
Tasmania	127,699	126,691	129,278	107,124	114,253
Northern Territory ..	6,671	6,268	6,772	6,939	6,070
Total	5,138,625	5,198,574	5,290,764	4,698,213	5,147,405

In the following table details are given of the number of admissions on which entertainments tax was paid during the year ended 30th June, 1951.

COMMONWEALTH ENTERTAINMENTS TAX: NUMBER OF ADMISSIONS TO TAXABLE ENTERTAINMENTS, 1950–51.

('000.)

Price of Admission (before Tax).	Theatres.	Picture Theatres.	Racing.	Dancing and Skating.	Sport.	Other.	Total.
s. d. *s. d.*							
1 0	..	10,966	774	500	..	92	12,332
1 0½– 1 6 ..	37	25,352	321	776	362	135	26,983
1 6½– 2 0 ..	143	42,366	1,079	3,067	2,521	744	49,920
2 0½– 2 6 ..	133	30,955	1,278	2,940	1,124	758	37,188
2 6½– 3 0 ..	477	16,814	414	1,321	1,281	571	20,878
3 0½– 3 6 ..	179	4,480	1,876	330	241	320	7,426
3 6½– 4 0 ..	449	1,631	1,763	326	132	542	4,843
4 0½– 4 6 ..	117	715	116	34	49	107	1,138
4 6½– 5 0 ..	287	577	83	98	148	410	1,603
5 0½– 5 6 ..	165	90	253	51	58	80	697
5 6½– 6 0 ..	218	7	629	89	26	322	1,291
6 0½– 6 6 ..	111	..	114	14	8	76	323
6 6½– 7 0 ..	313	5	277	34	2	94	725
7 0½– 7 6 ..	99	1	40	35	3	37	215
7 6½– 8 0 ..	277	..	346	63	7	163	856
8 0½– 8 6 ..	74	..	30	65	9	4	182
8 6½– 9 0 ..	47	..	3	7	1	30	88
9 0½– 9 6 ..	11	..	506	85	..	6	608
9 6½–10 0 ..	656	..	83	10	14	85	848
Over 10 0 ..	519	..	1,320	193	20	95	2,147
Total ..	4,312	133,959	11,305	10,038	6,006	4,671	170,291

There were 12,893,000 admissions at the reduced rate, and 157,398,000 at the full rate.

(*i*) *Sales Tax.* The sales tax was first imposed in August, 1930. The operation of the tax is controlled chiefly by a system of registration of taxpayers whereby all manufacturers and wholesale merchants, who are the taxpayers under the Act in respect of goods sold in Australia, must be registered with the Department. The tax on imports subject to sales tax is collected by the Customs Department at ports of entry.

Since the inception of the tax certain exemptions have been allowed. These exemptions, which have been extended from time to time, relate mainly to goods of an essential nature or for use in primary production. The most recent exemptions were those granted from 13th October, 1950, and 27th September, 1951.

A general rate of Sales Tax is levied on all goods other than those specified in the schedules of the Sales Tax (Exemptions and Classifications) Act 1935–1951. These schedules set out details of goods exempt from sales tax and those subject to special rates. The general and special rates which operated from 15th November, 1946, were :—

Period.	General Rate.	Special Rate.
15th November, 1946 to 7th September, 1949 ..	10 per cent. ..	25 per cent.
8th September, 1949 to 12th October, 1950 ..	8⅓ per cent. ..	25 per cent.
13th October, 1950 to 26th September, 1951 ..	8⅓ per cent. ..	10, 25 and 33⅓ per cent.
From 27th September, 1951	12½ per cent. ..	20, 25, 33⅓, 50 and 66⅔ per cent.

For particulars of rates applicable since the inception of Sales Tax in August, 1930 *see* Official Year Book No. 37, page 617.

Particulars of the net amount of sales tax payable, and the sales of taxable and exempt goods in each State for 1950–51 are given in the following table. The figures are in respect of sales during the period 1st July to 30th June.

SALES TAX AND AMOUNT OF SALES, 1950–51.

(£'000.)

State, etc.	Net Sales on which Sales Tax was Payable.	Sales of Exempt Goods by Registered Persons.	Total Sales of Taxable and Exempt Goods.	Net Taxable Sales at Each Rate.				Sales Tax Payable.
				8⅓ per cent.	10 per cent.	25 per cent.	33⅓ per cent.	
New South Wales ..	217,539	449,899	667,438	184,923	16,210	5,321	11,085	22,070
Victoria	170,832	353,624	524,456	140,906	19,427	3,421	7,078	16,899
Queensland	65,313	132,634	197,947	56,025	6,234	1,133	1,921	6,216
South Australia ..	49,070	104,064	153,134	42,691	4,240	793	1,346	4,629
Western Australia ..	34,561	70,827	105,388	30,316	2,777	534	934	3,249
Tasmania	9,846	26,815	36,661	8,933	575	120	218	905
Northern Territory ..	186	1,024	1,210	181	..	3	2	16
Total	547,347	1,138,887	1,686,234	463,975	49,463	11,325	22,584	53,984

Sales of taxable and exempt goods and sales tax payable for Australia as a whole for the years 1938–39 and 1946–47 to 1950–51 are shown in the following table :—

SALES TAX AND AMOUNT OF SALES.

(£'000.)

Year.	Net Sales on which Sales Tax was Payable.	Sales of Exempt Goods by Registered Persons.	Total Sales of Taxable and Exempt Goods.	Sales Tax Payable.
1938–39	196,491	280,656	477,147	9,363
1946–47	294,957	506,046	801,003	35,782
1947–48	314,311	639,948	954,259	34,059
1948–49	363,164	757,381	1,120,545	38,197
1949–50	455,251	866,575	1,321,826	40,789
1950–51	547,347	1,138,887	1,686,234	53,984

In the foregoing tables exempt sales relate to goods exempted from sales tax under the Sales Tax (Exemptions and Classifications) Act 1935–1951.

The figures shown in the foregoing tables do not represent the total sales of all commodities, as vendors trading in exempt goods only are not required to be registered and consequently the volume of their sales is not included in the statistics above.

(*j*) *Flour Tax.* Particulars of the rates of flour tax which operated from 4th December, 1933 to 21st December, 1947 are given in Official Year Book No. 37, pages 618 and 619. Because of the rise in wheat prices the rate was declared to be nil as from 22nd December, 1947.

Net receipts after allowing for refunds for 1938–39 and the last five years were: 1938–39, £1,793,833; 1946–47, £1,706,623; 1947–48, £941,207; 1948–49, *Dr.* £8,839; 1949–50, *Dr.* £11,319; and 1950–51, *Dr.* £2,100.

(*k*) *Wool Levy.* The Wool Tax Act 1936 and Wool Tax Assessment Act 1936 provided for a levy on all wool grown in Australia and shorn on or after 1st July, 1936. Details of this levy are given in earlier issues of the Official Year Book. The levy is suspended for any period during which the Wool (Contributory Charge) Act 1945 is in operation. The Wool Contributory Charge was levied from 1st July, 1946 and only arrears of wool levy have been collected since that date. The amounts collected from wool levy in 1938–39, 1946–47 and 1947–48 were £74,396, £11,628 and £458 respectively. No levy has been collected since 1947–48.

(*l*) *Wool Contributory Charge.* The Wool (Contributory Charge) Act 1945 and the Wool (Contributory Charge) Assessment Act 1945 imposed a charge on all wool produced in Australia and sold, manufactured or exported after a date fixed by proclamation. Wool sold by the Australian Wool Realization Commission was not liable to the charge. The rate of the charge is to be such a percentage of the sale value of the wool as is necessary to provide the following amounts:—

(*a*) The amounts required to meet the share of the industry in the operating expenses of the Joint Organization for the disposal of wool stocks;

(*b*) the amounts required for payment of interest on the amount spent by the Commonwealth in purchase of wool under the disposals plan; and

(*c*) the amount of the wool levy.

The Acts came into operation on 1st July, 1946, and the rate fixed was 5 per cent. on the sale value of the wool. From 1st August, 1947 the rate was reduced to 0.75 per cent. A further reduction to 0.5 per cent. was made on 1st July, 1948. On 26th August, 1950, the rate of the charge was reduced to 0.25 per cent. and a further charge of 7.25 per cent. to provide funds for a reserve prices scheme was introduced. In the Wool (Reserve Prices) Fund Act 1950 it was provided that if a reserve prices scheme which had the general approval of wool-growers was not in operation on 30th September, 1951 the amounts of contributory charge collected for that purpose were to be refunded.

A scheme placed before wool-growers was not accepted and the collections were subsequently refunded. (*See also* Chapter XIX.—Pastoral Production.) Collections in each State during the years 1946–47 to 1950–51 are shown in the following table :—

WOOL CONTRIBUTORY CHARGE RECEIPTS.

(£.)

State.	1946–47.	1947–48.	1948–49.	1949–50.	1950–51.
New South Wales ..	1,554,997	502,281	315,280	551,707	15,665,338
Victoria..	1,315,834	359,574	294,734	402,218	12,956,946
Queensland	747,298	248,589	192,143	211,595	6,859,425
South Australia	399,372	154,161	107,939	134,137	4,500,062
Western Australia ..	389,879	134,084	99,873	115,979	4,061,422
Tasmania	89,727	25,173	19,141	23,512	801,068
Total	4,497,107	1,423,862	1,029,110	1,439,148	44,844,261

(*m*) *Wool Sales Deduction.* The Wool Sales Deduction Act 1950 and the Wool Sales Deduction (Administration) Act 1950 came into operation on 2nd December, 1950 and require that a deduction be made from the sale value of wool sold or exported, the amount deducted being subsequently added to the wool-growers provisional tax and the total amount set off against the Income Tax and Social Services Contribution assessed in respect of the year in which the deduction was made. For the income year 1950–51 the amount of deduction was 20 per cent. of the sale value. Deductions for each State during the year 1950–51 were as follows :—New South Wales, £42,693,248 ; Victoria, £28,787,516 ; Queensland, £15,458,630 ; South Australia, £10,170,949 ; Western Australia, £10,154,237 ; Tasmania, £2,148,625 ; Total, £109,413,205.

See also Chapter XIX.—Pastoral Production.

(*n*) *Wheat Export Charge and Wheat Tax.* The Wheat Export Charge Acts 1946 imposed an export charge on wheat (including the content of wheat products) harvested after 30th September, 1945 and exported from the Commonwealth after 30th November, 1945. These acts did not apply to wheat harvested between 1st October, 1945 and 1st October, 1947 and exported by the Australian Wheat Board, but provision was made in the Wheat Tax Act 1946 to collect an amount equivalent to the charge that would have been collected on this wheat, by imposing a tax on wheat acquired by the Board. There were no collections under the Wheat Export Charge Acts 1946, but collections under the Wheat Tax Act 1946, which came into operation on 9th August, 1946 and imposed a tax on all wheat of the 1945–46 and 1946–47 seasons acquired by the Australian Wheat Board, amounted to £5,500,000 in 1946–47 and £5,729,780 in 1947–48. These amounts were paid to the Wheat Prices Stabilization Fund and, under the Wheat Tax (Refund and Repeal) Act 1948, were refunded to growers. The amount of the refund was £11,548,637 (including interest, £318,857).

The Wheat Export Charge Act 1948, which operated from 25th November, 1948, repealed the Wheat Export Charge Acts 1946 and provided for an export charge on all wheat and wheat products of the 1947–48 and subsequent seasons exported after 25th November, 1948. Subject to a lower rate being prescribed, the rate of charge per bushel of wheat exported by the Australian Wheat Board was fixed at 50 per cent. of the amount by which the average price per bushel of all wheat exported by the Board exceeded the guaranteed price, with a maximum charge of 2s. 2d. per bushel. If the exporter is not the Australian Wheat Board the charge is the same except that there is no maximum charge of 2s. 2d. per bushel.

The guaranteed price for the 1947–48 season was 6s. 3d. per bushel for all fair average quality bulk wheat f.o.r. at the ports of export. It was raised to 6s. 8d. per bushel for the 1948–49 season and to 7s. 1d. for the 1949–50 season. Unless Parliament otherwise provides the act shall not apply to wheat harvested after 30th September, 1953.

Under the Wheat Industry Stabilization Act 1946–1948 an amount equivalent to the charges collected under the Wheat Export Charge Act 1948 is paid to the Wheat Prices Stabilization Fund. Out of this fund payments shall be made to the Australian Wheat Board, when required, for the purpose of building up the average export price for any season to the guaranteed price. Under the Wheat Industry Stabilization (Refund of Charge) Acts 1950 and 1951 the wheat export charge collected on wheat for the 1947–48 and 1948–49 seasons was refunded. (*See also* Chapter XX.—Agricultural Production.)

Collections of wheat tax and wheat export charge were as follows:—1946–47, £5,500,000; 1947–48, £5,730,000; 1948–49, £18,086,000; 1949–50, £12,633,000; and 1950–51, £13,353,000.

(o) *Stevedoring Industry Charge.* The Stevedoring Industry Charge Act 1947 and the Stevedoring Industry Charge Assessment Act 1947 imposed a charge of 4½d. per man-hour on the employer of a waterside worker after 22nd December, 1947.

The amounts received are paid to the Stevedoring Industry Board for the payment of attendance money to waterside workers and for other expenses of the Board.

From 11th October, 1949 the charge was reduced to 2½d. per man hour.

Collections in each State during the years 1947–48 to 1950–51 are shown in the following table:—

STEVEDORING INDUSTRY CHARGE RECEIPTS.

(£.)

State.	1947–48.	1948–49.	1949–50.	1950–51.
New South Wales	101,833	233,964	173,012	142,214
Victoria	65,332	164,727	129,543	107,313
Queensland	31,562	113,069	82,190	66,137
South Australia	27,608	72,567	49,180	46,244
Western Australia	17,563	44,835	35,395	32,354
Tasmania	16,467	38,593	27,733	24,838
Northern Territory	..	2,464	2,176	1,309
Total	260,365	670,219	499,229	420,409

3. **Business Undertakings.**—(i) *Postmaster-General's Department.* Particulars of net receipts for each of the financial years 1938–39 and 1946–47 to 1950–51 are contained in the following table:—

POSTMASTER-GENERAL'S DEPARTMENT: NET RECEIPTS.

(£.)

Particulars.	1938–39.	1946–47.	1947–48.	1948–49.	1949–50.	1950–51.
Private boxes and bags ..	74,235	96,484	85,689	93,514	96,219	143,907
Commission on money orders and postal notes	288,580	347,959	374,285	408,309	440,868	471,948
Telegraphs	1,372,300	2,904,538	2,833,959	2,991,326	3,756,382	4,442,268
Telephones	8,039,580	13,317,289	14,183,604	15,055,458	19,167,956	22,667,318
Postage	6,635,977	11,628,882	12,372,758	12,734,873	13,941,714	16,019,987
Radio	516,178	782,023	797,956	1,191,521	(a)	(a)
Miscellaneous	439,461	725,115	741,403	831,700	945,688	1,031,379
Total	17,366,311	29,802,290	31,389,654	33,306,701	38,348,827	44,776,807

(a) Included under Broadcasting Services.

Further particulars of the Postmaster-General's Department's receipts to 1949–50 are given in Chapter V.—Transport and Communication (part I. Posts, Telegraphs, Telephones and Wireless).

(ii) *Broadcasting Services.* Following the amendment of the Australian Broadcasting Act 1942–1946 by Act No. 64 of 1948, the Broadcasting Control Board was set up on 15th March, 1949. (*See also* Chapter V.—Transport and Communication, and Chapter XXIX.—Miscellaneous.)

Details of net receipts for the years 1949–50 and 1950–51 are shown in the following table :—

BROADCASTING SERVICES : NET RECEIPTS.
(£.)

Particulars.	1949–50.	1950–51.
Listeners' Licence Fees	1,898,865	1,943,130
Broadcasting Station Licence fees	16,811	17,670
Miscellaneous	18,602	9,657
Total	1,934,278	1,970,457

(iii) *Commonwealth Railways.* The Commonwealth Government is responsible for four railways—the Trans-Australian, the Central Australia, the North Australia and the Australian Capital Territory. The following table shows the amounts paid to the credit of the Consolidated Revenue Fund on account of each of these railways for the years 1938–39 and 1946–47 to 1950–51 :—

COMMONWEALTH RAILWAY REVENUE.
(£.)

Railway.	1938–39.	1946–47	1947–48.	1948–49.	1949–50.	1950–51.
Trans-Australian	330,643	691,740	754,360	888,512	980,632	1,175,504
Central Australia	137,521	395,377	383,630	679,161	775,845	815,739
North Australia	50,471	58,140	37,549	28,839	34,880	38,227
Aust. Cap. Territory	7,275	9,260	14,621	9,084	12,595	14,995
Total	525,910	1,154,517	1,190,160	1,605,596	1,803,952	2,044,465

Further particulars to 1949–50 are given in Chapter V.—Transport and Communication (part B. Railways).

4. **Other Sources of Revenue.**—Revenue derived by Consolidated Revenue Fund from the Territories of the Commonwealth during 1950–51 amounted to £1,150,000 (Australian Capital Territory, £831,000 : Northern Territory, £319,000). Of other sources of revenue, amounting in 1950–51 to £14,663,000, the following are noteworthy:—Interest, £2,521,000 ; Civil Aviation, £3,504,000 ; and Net Profit on Australian Note Issue, £3,394,000.

Division III.—Expenditure.

1. **Details of Expenditure from Consolidated Revenue.**—The following table shows details of the expenditure from the Consolidated Revenue Fund during the years 1938–39 and 1946–47 to 1950–51.

COMMONWEALTH CONSOLIDATED REVENUE FUND : EXPENDITURE.
(£'000.)

Departments, etc.	1938–39.	1946–47.	1947–48.	1948–49.	1949–50.	1950–51.
Defence Services (*a*) ..	8,061	159,836	69,148	56,304	42,774	74,045
War (1939–45) and Repatriation Services (*b*)	..		62,593	111,494	74,821	129,635
War (1914–18) and Repatriation Services (*b*)	19,257	19,259	19,674	21,647	21,773	
Subsidies and Bounties (*c*) ..	236	30,390	45,882	23,108	20,683	40,537
Total Cost of Departments—						
Governor-General	33	47	45	52	45	53
Parliament	445	736	828	771	1,182	1,473
Prime Minister	1,133	1,510	1,857	2,239	2,734	3,954
External Affairs	70	1,305	1,832	1,661	1,972	3,778
Treasury	2,258	4,765	5,747	6,170	6,617	8,285
Attorney-General ..	282	569	689	745	821	1,096
Interior	1,275	1,437	1,703	2,039	2,358	2,727
Works and Housing ..	(*d*)	1,601	1,752	1,998	1,187	1,742
Civil Aviation	328	1,258	3,859	5,028	6,500	8,488
Trade and Customs ..	838	1,418	1,648	1,827	2,152	2,681
Health	338	473	581	768	1,034	1,133
Commerce and Agriculture ..	984	4,410	5,024	5,155	1,700	2,040
Social Services	325	776	801	1,073	1,357	1,826
Supply	(*e*)	(*e*)	(*e*)	821	1,185	441
Shipping and Transport ..	215	389	5,292	3,947	3,020	1,473
Territories	(*f*)	56	55	75	91	129
Immigration	(*d*)	183	1,411	3,589	9,801	12,970
Labour and National Service	..	1,127	1,277	1,328	1,776	2,413
National Development ..	..	227	353	319	402	771
Commonwealth Scientific and Industrial Research Organization	223	1,252	1,579	1,825	2,007	2,566
National Welfare Fund (*g*) ..	16,428	64,647	88,043	110,058	123,288	132,680
Business Undertakings—						
Postmaster-General ..	15,028	26,756	32,171	40,919	47,512	54,802
Broadcasting Services ..	(*h*)	(*h*)	(*h*)	(*h*)	2,872	3,591
Railways..	1,351	1,921	2,089	2,594	2,792	3,381
Territories	1,100	3,291	4,189	5,768	7,294	8,260
Capital Works and Services—						
Defence and War (1939–45) Services	1,349	5,237	3,288	5,624	12,500	75,125
Repatriation	141	2,355	6,217	8,664	14,848	(*i*) 342
Postmaster-General ..	3,701	7,161	8,260	12,520	16,792	34,897
Broadcasting Services ..	(*h*)	(*h*)	(*h*)	(*h*)	157	212
Railways..	142	114	148	223	482	1,461
Territories	739	1,226	1,447	2,628	3,161	5,085
Other	493	6,324	9,429	13,463	25,757	31,471
Total Capital Works and Services	6,565	22,417	28,789	43,122	73,697	148,593
Payments to or for States ..	15,649	60,381	66,660	78,604	101,132	128,032
Primary Production—Self Balancing Items	(*j*) 2,015	18,819	8,914	19,329	14,073	58,197
Grand Total	94,437	431,256	464,485	554,377	580,652	841,792
	£ *s.* *d.*	£ *s.* *d.*	£ *s.* *d.*	£ *s.* *d.*	£ *s.* *d.*	£ *s.* *d.*
Per Head of Population ..	13 12 5	57 7 2	60 15 11	71 1 8	72 2 8	101 5 8

(*a*) For details *see* § 6, pages 796–7. (*b*) For details *see* § 7, page 798. (*c*) In previous issues of the Official Year Book part was included with War (1939–45) Services and the balance with Departments of Trade and Customs and Commerce and Agriculture. For details *see* pages 186–7. (*d*) Included with Department of the Interior. (*e*) Included with Defence Services. (*f*) Included with Prime Minister's Department. (*g*) For details *see* page 781. In 1938–39 expenditure consisted of Invalid and Age Pensions and Maternity Allowances. (*h*) Provided in part from Postmaster-General's Department Votes and balance from Wireless Broadcasting Trust Account. (*i*) In addition, £24,911,000 was provided from Loan Fund. (*j*) Assistance to Primary Producers.

Particulars for each department include interest, sinking fund, superannuation charges, etc., but do not include the expenditure on capital works and services and Defence, War and Repatriation Services. Details of expenditure of each department are shown in paragraph (2.) below.

A graphical representation of the revenue and expenditure of the Commonwealth Consolidated Revenue Fund appears on page 805. In this diagram Public Debt Charges (interest and sinking fund payments, etc.) are shown as a separate item, whereas in the table above, these charges are included in the section to which they relate. Details for 1950–51 are as follows :—Interest (including exchange on interest payments), £49,512,402 ; Sinking Fund, £17,087,439 ; Other Debt Charges, £375,032 ; Total, £66,974,873.

2. **Total Cost of Departments.**—(i) *Introductory.* Under the heading "Total Cost of Departments" are included (i) particulars of expenditure on the estimates of departments in respect of salaries and general expenses, and (ii) particulars of expenditure from special appropriations in respect of salaries of the Governor-General, Ministers, Judges, etc., Government contributions for superannuation, and interest and sinking fund charges, etc., allocated to departments. Expenditure from appropriations for Defence, War and Repatriation Services, and Capital Works and Services is not included.

Information on the functions of the several departments and the acts administered by the Ministers of Departments was published in Official Year Book No. 37, pages 76–86, and particulars of subsequent changes in departmental structure are given in this issue (pages 100–1).

(ii) *Governor-General.* Section 30 of the Constitution enacts that, until the Commonwealth Parliament otherwise provides, there shall be payable out of the Consolidated Revenue Fund for the salary of the Governor-General an annual sum of ten thousand pounds, and a proviso is made that the salary of a Governor-General shall not be altered during his continuance in office. The expenditure in connexion with the Governor-General and establishment for the years 1938–39 and 1946–47 to 1950–51 was as follows :—

EXPENDITURE : GOVERNOR-GENERAL AND ESTABLISHMENT.

(£.)

Details.	1938–39.	1946–47.	1947–48.	1948–49.	1949–50.	1950–51.
Salary	10,000	10,000	10,000	10,000	10,000	10,000
Government Houses, maintenance, etc.	12,305	23,956	24,748	32,219	24,878	31,410
Governor-General's office (*a*)	5,381	8,565	5,649	5,122	4,779	6,477
Interest and Sinking Fund ..	5,079	4,082	4,446	4,956	5,090	4,873
Total	32,765	46,603	44,843	52,297	44,747	52,760

(*a*) Represents official services outside the Governor-General's personal interests, and carried out mainly at the instance of the Government.

(iii) *Parliament.* Under this head have been grouped all the items of expenditure connected with the Commonwealth parliamentary government of Australia for the years 1938–39 and 1946–47 to 1950–51. Although the administration of the Electoral Act and the conduct of elections come within the functions of the Department of the Interior, the expenditure in connexion therewith is fundamentally incurred on account of the parliamentary government system and for that reason is included herein.

EXPENDITURE : COMMONWEALTH PARLIAMENT.

(£.)

Details.	1938–39.	1946–47.	1947–48.	1948–49.	1949–50.	1950–51.
Salaries of Ministers	19,325	22,749	29,150	29,150	29,150	29,150
Allowances to Senators	36,171	36,200	54,300	54,300	74,429	89,978
Allowances to Members of House of Representatives	74,900	74,928	111,358	112,000	151,970	184,425
Parliamentary Retiring Allowances ..	..	..	..	..	12,290	11,164
Officers, staff, contingencies, etc. ..	85,799	159,358	188,748	215,470	255,898	370,456
Printing	22,000	34,924	28,479	42,417	49,600	59,269
Travelling expenses of Members ..	41,429	66,021	70,973	71,920	91,000	121,548
Electoral Office	85,143	106,231	120,774	138,411	208,939	260,535
Election expenses	3,232	154,848	146,660	2,647	176,648	210,458
Administration of Electoral Act ..	20,029	38,079	30,539	52,436	79,407	83,567
Interest and Sinking Fund	41,444	33,170	36,144	40,304	41,393	39,595
Miscellaneous	15,401	9,068	11,349	11,838	11,600	12,503
Total	444,873	735,576	828,474	770,893	1,182,324	1,472,648

In Section 66 of the Constitution provision is made for the payment from Consolidated Revenue of an annual sum for the salaries of Ministers, and Section 48 specifies the amount of the allowance to each Senator and each Member of the House of Representatives. These details, together with subsequent increases, will be found on pages 14 and 18 of this volume, while details of the cost of parliamentary government of the Commonwealth and each State will be found on page 102.

(iv) *Prime Minister's Department.* Since the tables published in the last issue of the Official Year Book were prepared, several changes have occurred in departmental structure (*see* pages 100–1). This department has been affected as follows. In May, 1949, the Council for Scientific and Industrial Research, which was under the control of the Prime Minister's Department, was abolished. and the Commonwealth Scientific and Industrial Research Organization was constituted ; early in 1950 the Office of Education and the Division of Economic Policy were transferred from the Department of Post-war Reconstruction to the Prime Minister's Department. In respect of each of these changes the table below has been amended so that the figures are comparable throughout the periods shown ; that is, expenditure on the Office of Education and the Division of Economic Policy is incorporated in the table back to 1946–47, and the expenditure on the Council for Scientific and Industrial Research has been deleted and is now included under the heading of the Commonwealth Scientific and Industrial Research Organization (*see* page 784). External territories were administered by the Prime Minister's Department until June, 1941, when the Department of External Territories was created. Particulars of expenditure relating to the administration of external territories for the years 1946–47 to 1950–51 are shown under the heading of the Department of Territories (*see* page 783). The expenditure of the Prime Minister's Department for the years 1938–39 and 1946–47 to 1950–51 is shown in the following table :—

EXPENDITURE : PRIME MINISTER'S DEPARTMENT.

(£.)

Details.	1938–39.	1946–47.	1947–48.	1948–49.	1949–50.	1950–51.
Salaries, contingencies and miscellaneous	210,770	203,150	203,854	244,257	389,002	(*a*)921,624
Audit Office	38,434	108,724	147,561	192,050	210,598	271,789
Public Service Board	50,688	94,456	143,435	212,489	288,765	380,791
High Commissioner's Office, London ..	81,369	263,269	351,490	450,012	485,423	547,577
Office of Education	..	383,377	471,738	494,803	495,490	820,999
Security Services	..	..	..	13,000	115,000	208,000
Mail Service, Pacific Islands ..	49,077	(*b*)	(*b*)	(*b*)	(*b*)	(*b*)
Australian National University ..	..	14,000	50,000	102,000	216,000	280,000
North Australia Survey	10,000	..	..	..	..	..
National Oil Pty. Ltd. Agreement ..	60,000	..	..	..	..	..
Pensions and Superannuation ..	10,473	14,036	18,790	27,837	27,580	32,016
Rent, repairs, etc.	8,120	18,788	22,910	19,041	9,976	15,478
Interest and Sinking Fund	613,696	410,459	446,863	483,595	496,691	476,006
Total	1,132,627	1,510,259	1,856,641	2,239,084	2,734,525	3,954,280

(*a*) Includes £268,567, Jubilee Celebrations, 1951. (*b*) Included with Department of Territories.

(v) *Department of External Affairs.* Expenditure of the department for the years 1938–39 and 1946–47 to 1950–51 is shown in the following table :—

EXPENDITURE : DEPARTMENT OF EXTERNAL AFFAIRS.

(£.)

Details.	1938–39.	1946–47.	1947–48.	1948–49.	1949–50.	1950–51.
Salaries and General Expenses—						
Administrative	20,129	224,617	230,028	239,171	284,451	381,919
Embassies—						
China	..	72,993	57,188	47,244	27,386	14,888
Eire	..	9,011	12,496	15,868	13,115	16,476
France	..	40,015	53,692	56,816	52,395	55,136
Netherlands	..	13,818	19,134	24,289	17,491	24,262
Union of Soviet Socialist Republics	..	26,153	55,356	49,448	63,440	67,468
United States of America ..	..	136,691	142,615	95,649	120,046	172,572
United States of Indonesia ..	..	(*a*)	(*a*)	(*a*)	(*a*)	35,413
Legations—						
Brazil	..	26,274	29,138	20,017	28,222	24,193
Chile	..	29,603	18,218	17,727	3,091	..
Egypt	..	..	..	..	7,524	22,443
Israel	..	..	..	..	19,814	26,823
Italy	..	..	..	..	26,487	30,800
Philippine Islands	..	(*a*)	(*a*)	(*a*)	(*a*)	32,769
High Commissioners (*b*)—						
Canada	..	32,200	35,459	28,971	37,642	39,705
India	..	28,457	33,977	34,386	36,726	41,245
New Zealand	..	13,723	15,911	17,625	21,283	23,612
Pakistan	..	..	2,437	10,468	30,498	44,162
South Africa	..	22,471	18,927	18,857	22,821	19,093
Consular Representation abroad ..	..	143,610	211,299	190,946	218,379	198,343
Other Representation abroad ..	..	46,625	60,122	60,911	64,916	74,650
International Labour Organization, United Nations Organization and other International agencies—Contributions and Representation at Conferences	43,329	413,251	577,240	618,465	778,051	787,875
Contributions to International Relief	..	(*c*)	(*c*)	(*c*)	(*c*)	1,510,545
Australian National Antarctic Research Expedition	..	20,062	254,755	107,529	84,200	118,924
Miscellaneous	6,710	5,697	3,593	7,031	13,766	14,520
Total	70,168	1,305,271	1,831,585	1,661,418	1,971,744	3,777,836

(*a*) Provided under Consular Representation abroad. (*b*) For High Commissioner, United Kingdom, *see* Prime Minister's Department. (*c*) Provided under War and Repatriation Services (*see* page 798).

(vi) *Department of the Treasury.* The sub-departments under the control of the Commonwealth Treasurer are the Treasury, the Supply and Tender Board, Taxation Office, Superannuation Board, and the Commonwealth Bureau of Census and Statistics. The Government Printing Office is also a sub-department of the Treasury, but its expenditure is charged to Parliament and the Departments utilizing its services. Details of the expenditure of the Treasury for the years 1938–39 and 1946–47 to 1950–51 are given in the following table :—

EXPENDITURE : DEPARTMENT OF THE TREASURY.

(£.)

Details.	1938–39.	1946–47.	1947–48.	1948–49.	1949–50.	1950–51.
Treasury (*a*)	56,528	235,035	282,542	239,562	233,450	324,688
Taxation Office	618,537	2,529,374	3,261,302	3,667,266	4,121,799	5,326,217
Superannuation Board	8,623	14,291	19,659	28,273	37,637	52,192
Census and Statistics	60,939	132,717	169,321	227,246	273,682	373,998
Census	4,113	244,415	143,604	82,293	38,882	10,188
Rent, repairs, etc.	23,088	90,695	97,487	89,027	103,769	142,375
Interest and Sinking Fund	911,004	993,130	1,012,066	1,101,241	1,014,366	1,246,809
Exchange	514,240	374,891	341,039	372,060	364,887	436,602
Loan conversion expenses	1,588	3,039	160,801	6,327	12,470	3,523
Miscellaneous	58,968	146,869	258,837	356,957	416,020	368,630
Total	2,257,628	4,764,456	5,746,658	6,170,252	6,616,962	8,285,222

(*a*) Includes Supply and Tender Board.

(vii) *Attorney-General's Department.* Details of expenditure for the years 1938–39 and 1946–47 to 1950–51 are furnished below :—

EXPENDITURE : ATTORNEY-GENERAL'S DEPARTMENT.

(£.)

Details.	1938–39.	1946–47.	1947–48.	1948–49.	1949–50.	1950–51.
Attorney-General's Office ..	19,699	42,922	44,098	59,687	78,835	123,164
Crown Solicitor's Office ..	27,642	104,317	123,658	133,689	140,132	179,225
Salaries of Justices of High Court	18,500	21,600	28,400	28,500	28,300	32,000
High Court expenses ..	15,615	19,014	21,662	24,157	29,296	37,340
Court of Conciliation and Arbitration	24,046	60,070	89,581	117,868	133,962	139,170
Public Service Arbitrator ..	5,919	4,983	9,279	8,839	11,399	12,934
Patents, Trade Marks, etc. ..	71,126	97,642	127,862	145,661	151,572	196,799
Investigation Branch ..	16,219	52,125	59,198	66,506	64,502	78,769
Bankruptcy	44,551	41,449	49,200	54,641	59,315	78,682
Reporting Branch ..	13,922	25,058	36,855	45,062	52,600	70,725
Legal Service Bureau ..	..	36,867	46,107	(*a*)	(*a*)	57,921
Rent, repairs, etc. ..	15,131	36,277	32,175	36,295	41,011	56,136
Miscellaneous	9,127	26,910	20,497	24,201	29,636	33,409
Total	281,497	569,234	688,572	745,106	820,560	1,096,274

(*a*) Provided under War and Repatriation Services (*see* page 798).

(viii) *Department of the Interior.* Particulars of the expenditure for the years 1938–39 and 1946–47 to 1950–51 on services (other than Railways, Territories and the Electoral Office) under the control of this Department are shown in the table below.

In 1938–39 the administration of Commonwealth public works and immigration was the responsibility of the Department of the Interior and the expenditure for that year includes these services. For the years 1946–47 to 1950–51 the expenditure on these services is included under the respective departments. Northern Territory and the Australian Capital Territory, which are administered by the Department of the Interior are for convenience included under Territories, while expenditure in connexion with the Electoral Office, which is administered by the Department of the Interior, is included under Parliament. Commonwealth Railways, whose administration passed to the Department of Shipping and Fuel from the Department of the Interior in March, 1950, is also shown separately—*see* Railways below.

In March, 1950 the Department of Information was abolished and the News and Information Bureau was established under the control of the Department of the Interior. The table below has been revised to include expenditure on information services from 1946–47.

EXPENDITURE : DEPARTMENT OF THE INTERIOR.(*a*)

(£.)

Details.	1938–39.	1946–47.	1947–48.	1948–49.	1949–50.	1950–51.
Salaries, Contingencies and Miscellaneous—						
Administrative(*b*) ..	380,550	615,521	720,509	877,707	1,016,945	1,236,456
Meteorological Branch ..	80,107	60,578	116,424	194,963	291,601	398,772
Solar Observatory ..	6,816	22,887	32,301	36,028	45,449	55,739
Forestry Branch ..	10,436	28,709	45,008	51,096	60,151	79,700
Rent, repairs and maintenance	17,618	101,134	119,158	129,966	174,283	216,358
Pensions, Superannuation and Retiring Allowances ..	20,567	21,761	29,367	31,905	33,437	41,479
Interest	690,061	484,046	533,337	604,908	617,368	574,448
Sinking Fund	69,237	102,295	107,410	112,781	118,420	124,341
Total	1,275,392	1,436,931	1,703,514	2,039,354	2,357,654	2,727,293

(*a*) Excludes Railways, Territories and Electoral Office. (*b*) Includes Information Bureau.

(ix) *Department of Works and Housing.* In February, 1945 the Department of Works was formed to take over Commonwealth works from the Department of the Interior. The functions of this department were expanded in July, 1945 to include Housing, which had previously been controlled by the Department of Post-war Reconstruction. Details of expenditure for the years 1946–47 to 1950–51 are shown in the following table :—

EXPENDITURE : DEPARTMENT OF WORKS AND HOUSING.

(£.)

Details.	1946–47.	1947–48.	1948–49.	1949–50.	1950–51.
Administrative—Salaries and general expenses ..	1,500,217	1,659,389	1,872,538	1,058,035	1,594,430
Pensions, Superannuation and Retiring Allowances	8,102	11,168	13,378	16,080	21,406
Rent, repairs and maintenance	92,525	82,139	111,931	113,035	126,280
Total ..	1,600,844	1,752,696	1,997,847	1,187,150	1,742,116

(x) *Department of Civil Aviation.* Particulars of expenditure of the Department of Civil Aviation for the years 1938–39 and 1946–47 to 1950–51 are as follows :—

EXPENDITURE : DEPARTMENT OF CIVIL AVIATION.

(£.)

Details.	1938–39.	1946–47.	1947–48.	1948–49.	1949–50.	1950–51.
Administrative—Salaries and general expenses	89,946	808,617	1,262,828	1,839,726	2,116,805	3,168,910
Development and Maintenance of Civil Aviation	162,232	202,132	352,292	604,291	1,348,886	1,767,034
Meteorological Services	..	149,330	173,100	219,000	222,500	264,905
Flying Boat Bases	55,919	38,444	54,845	63,147	91,659	(*a*)
Domestic Air Services	..	..	579,596	641,525	820,485	795,255
International Air Services	..	10,000	1,296,058	1,470,531	1,624,201	2,245,717
Rent, repairs and maintenance ..	8,428	40,531	130,213	178,342	264,351	235,345
Interest and Sinking Fund	11,625	9,258	10,088	11,249	11,553	11,051
Total	328,150	1,258,312	3,859,020	5,027,811	6,500,440	8,488,217

(*a*) Provided under Administrative and Development and Maintenance of Civil Aviation.

(xi) *Department of Trade and Customs.* Under this Department has been included the expenditure of all the sub-departments under the control of the Minister for Trade and Customs. The table has been revised to exclude bounties and subsidies which are now dealt with separately, (for details *see* page 787). Particulars for the years 1938–39 and 1946–47 to 1950–51 are given in the following table :—

EXPENDITURE : DEPARTMENT OF TRADE AND CUSTOMS.

(£.)

Details.	1938–39.	1946–47.	1947–48.	1948–49.	1949–50.	1950–51.
Administrative	691,723	1,164,549	1,402,057	1,573,913	1,816,559	2,391,756
Tariff Board	13,252	13,236	16,092	19,182	16,914	28,914
Film Censorship	4,466	5,273	6,309	8,490	9,721	11,317
Prices Branch	..	(*a*)	(*a*)	(*a*)	(*a*)	21,146
Audit (proportion)	11,786	20,765	18,135	17,784	16,315	21,437
Pensions and Superannuation ..	45,063	51,571	67,502	70,337	74,708	87,507
Rent, repairs, etc.	7,373	32,292	59,357	82,697	80,094	43,343
Interest and Sinking Fund	34,321	27,735	30,198	33,635	34,558	33,119
Remissions of duty	28,768	46,195	47,684	18,786	31,809	40,212
Miscellaneous	1,736	(*b*) 55,994	1,081	1,610	(*c*) 71,404	2,338
Total	838,488	1,417,610	1,648,415	1,826,434	2,152,082	2,681,089

(*a*) Provided under War and Repatriation Services. (*b*) Includes £55,000 compensation under Motor Manufacture Repeal Act 1945. (*c*) Includes assistance to the Cotton Marketing Board, £68,978.

(xii) *Department of Health.* Details of expenditure for the years 1938–39 and 1946–47 to 1950–51 are given in the table which follows. Expenditure on National Health and other services from the National Welfare Fund which are administered by the Health Department is shown in sub-para. (xiv).

EXPENDITURE: DEPARTMENT OF HEALTH.

(£.)

Details.	1938–39.	1946–47.	1947–48.	1948–49.	1949–50.	1950–51.
Administrative	135,506	196,369	261,109	152,938	209,153	297,059
Health Services (*a*)	3,492	22,325	42,795	204,889	173,766	286,994
Quarantine	(*b*)	(*b*)	(*b*)	66,462	79,997	143,247
Interest and Sinking Fund	23,661	20,132	21,549	23,512	24,067	23,300
Rent and Repairs	14,102	37,607	42,237	54,798	43,182	51,793
Pensions and Superannuation	2,870	5,261	7,950	9,746	9,366	12,469
Subsidy, Cattle Tick Control	69,450	53,325	53,325	53,325	253,325	53,000
Medical Research	30,000	32,000	50,000	55,000	68,047	85,000
Nutrition—Publicity and surveys	2,969	3,274	..	..	..	..
World Health Organization	..	..	199	44,760	56,934	59,742
Child Health Centres	5,000	20,000	20,000	20,000	25,000	25,000
Council for National Fitness	371	72,500	72,500	72,500	72,500	72,500
Aerial Medical Services subsidy	5,000	7,500	7,500	7,500	12,500	20,869
Miscellaneous	(*c*) 45,734	3,099	1,728	2,124	(*d*) 6,124	1,970
Total	338,155	473,392	580,892	767,554	1,033,961	1,132,943

(*a*) Includes X-ray and Radium Laboratory, Acoustics Laboratory, administration of Pharmaceutical Services, etc. (*b*) Included under Administrative. (*c*) Includes reserve of essential drugs and medical equipment, £39,430. (*d*) Includes subscription to International Veterinary Bureau, £4,937.

(xiii) *Department of Commerce and Agriculture.* Particulars of the expenditure of the Department of Commerce and Agriculture for the years 1938–39 and 1946–47 to 1950–51 are given below :—

EXPENDITURE: DEPARTMENT OF COMMERCE AND AGRICULTURE.

(£.)

Details.	1938–39.	1946–47.	1947–48.	1948–49.	1949–50.	1950–51.
Administrative	58,218	150,726	222,678	223,130	239,669	296,046
Administration of Commerce (Trade Descriptions) Act	174,876	297,483	348,368	400,456	446,503	516,052
Division of Agricultural Economics	..	18,316	27,501	34,358	44,187	77,706
Division of Agricultural Production	..	..	30,687	28,925	33,580	41,493
Oversea Trade publicity	67,016	12,267	14,439	11,647	11,509	12,966
Commercial intelligence service abroad	47,248	110,247	178,381	191,602	200,640	241,030
Wool publicity and research	73,816	..	..	..	..	..
Wool use promotion and research	..	229,957	546,839	317,452	340,970	347,506
Herd testing	..	10,827	20,000	20,000	20,000	20,000
Drought Relief	..	729,196	556,036	43	10,432	1,079
Research, experimental, investigation and development work	..	8,485	2,932	9,766	5,541	6,085
Agricultural machinery control	..	12,624	10,114	4,448	..	..
Assistance to Tasmanian Primary Producers	..	75,000	..	..	..	..
Wheat Industry Stabilization Board	..	28,094	27,384	27,557	..	..
Emergency transport of wheat	..	1,500,468	143,278	..	34,992	9,121
Wheat contract with New Zealand	..	876.962	2,692,337	3,537,426	..	..
International Wheat Council—Contributions	..	..	..	..	4,084	3,831
Dairy Industry Efficiency Grant	..	..	..	141,356	101,519	204,745
Rent, repairs, maintenance, etc.	13,081	20,379	12,230	10,266	8,612	8,558
Pensions and Retiring Allowances	12,959	9,868	15,674	14,628	14,689	17,981
Interest	198,599	224,716	130,936	148,508	151,591	141,052
Sinking Fund	245,404	57,633	22,470	23,594	24,774	26,013
All Other	(*a*)92,416	36,391	21,633	9,882	6,708	(*b*) 68,810
Total	(*c*)983,633	4,409,639	5,023,917	5,155,044	1,700,000	2,040,074

(*a*) Includes representation at New York World Fair, £39,780, and San Francisco Exhibition, £21,335. (*b*) Includes £29,817 for legal costs. (*c*) Revised to exclude £10,462, Fruit Bounties, now included under Subsidies and Bounties.

(xiv.) *Social Services.* The Department of Social Services, constituted during 1940–41, administers Age and Invalid Pensions, Maternity Allowances, Child Endowment, Widows' Pensions, and Unemployment and Sickness Benefits. Particulars of administrative expenditure during the years 1938–39 and 1946–47 to 1950–51 are as follows :—

EXPENDITURE : DEPARTMENT OF SOCIAL SERVICES.

(£.)

Details.	1938–39.	1946–47.	1947–48.	1948–49.	1949–50.	1950–51.
Administrative	..	23,783	44,128	55,325	91,997	101,581
Child Endowment Branch ..	..	150,884	173,607	206,241	260,294	1,584,620
Age and Invalid Pensions and Maternity Allowances Branch	138,634	279,504	333,146	425,804	524,755	
Widows' Pensions Branch ..	..	27,673	32,201	40,320	41,076	
Unemployment and Sickness Benefits Branch	..	217,012	129,504	182,658	254,834	
Rehabilitation Branch ..	..	..	..	52,396	76,354	
Miscellaneous	186,100	77,273	88,566	110,057	107,426	139,595
Total	324,734	776,129	801,152	1,072,801	1,356,736	1,825,796

Expenditure from the Consolidated Revenue and National Welfare Funds on Social Services during the years 1938–39 and 1946–47 to 1950–51, including services administered by the Department of Health, is shown in the following table :—

EXPENDITURE ON SOCIAL SERVICES.

(£.)

Details.	1938–39.	1946–47.	1947–48.	1948–49.	1949–50.	1950–51.
Age and Invalid Pensions ..	15,991,782	29,416,673	36,526,395	41,693,680	44,557,161	49,520,285
Funeral Benefits	..	209,349	209,588	252,979	245,822	254,058
Widows' Pensions	..	3,366,285	3,904,086	4,388,468	4,420,566	4,828,086
Maternity Allowances ..	436,514	3,026,459	2,854,018	2,828,849	3,007,906	3,057,519
Child Endowment	..	19,862,933	19,425,518	24,323,413	30,337,363	43,584,014
Unemployment and Sickness Benefits	..	1,650,125	1,217,474	1,070,426	2,506,425	1,037,213
Community Rehabilitation ..	..	..	..	33,979	218,940	309,811
Hospital Benefits	..	4,380,296	4,448,015	5,880,476	6,320,164	6,535,628
Pharmaceutical Benefits ..	..	..	..	149,037	304,689	2,930,163
Tuberculosis Benefits ..	..	109,603	27,590	156,049	534,550	2,275,399
National Health Services—						
Medical Benefits to Pensioners	..	..	..	..	..	75,511
Nutrition of Children ..	..	..	..	..	..	35,775
Miscellaneous	..	..	..	..	93,888	130,628
Mental Institution Benefits ..	..	..	..	..	255,586	405,664
Rental Rebates under Housing Agreement	..	..	..	..	564	3,021
Total	16,428,396	62,021,726	68,612,684	80,777,356	92,803,624	114,983,375
Balance remaining in National Welfare Fund	..	2,625,010	19,429,928	29,280,634	30,484,066	17,696,468
Grand Total	16,428,396	64,646,736	88,042,612	110,057,990	123,287,690	132,679,843

(xv) *Department of Supply.*—Early in 1950 the Departments of Supply and Development, and Shipping and Fuel were abolished, and the three Departments of Supply—Fuel, Shipping and Transport—and National Development were established. The Department of Supply took over the supply sections of the former Department of Supply and Development. Before 1948–49 expenditure for all the functions now performed by the Department of Supply was provided under Defence and War and Repatriation

Services. In the following table expenditure on services now controlled by this Department, and not provided under Defence or War and Repatriation Services, is shown for the years 1948–49 to 1950–51 :—

EXPENDITURE : DEPARTMENT OF SUPPLY.

(£.)

Details.	1948–49.	1949–50.	1950–51.
Administration—Salaries and general expenses ..	40,000	75,000	55,000
Ship Construction—Salaries and general expenses	66,795	70,534	80,011
Transport and Storage Services	571,783	977,105	284,881
Reserves of Stores and Materials	..	10,807	..
Mining Industry—Assistance	102,086	29,110	(a)
Electricity Supply in Australia—Development ..	23,632	11,222	21,358
Bureau of Mineral Resources—Operations ..	16,642	11,485	(a)
Total	820,938	1,185,263	441,250

(a) Provided under Department of National Development.

(xvi) *Department of Shipping and Transport.* This Department, formed early in 1950, was at first known as the Department of Fuel, Shipping and Transport and took over the functions of the former Departments of Shipping and Fuel and of Transport. In May, 1951, the fuel function was transferred to the Department of National Development.

The table below shows expenditure on these functions for the years 1938–39 and 1946–47 to 1950–51 :—

EXPENDITURE : DEPARTMENT OF SHIPPING AND TRANSPORT.

(£.)

Details.	1938–39.	1946–47.	1947–48.	1948–49.	1949–50.	1950–51.
Administrative	..	(a)54,618	795,549	597,566	685,707	132,274
Marine Branch	208,129	320,957	359,582	392,885	434,986	553,145
Shipping Branch and Australian Shipping Board	..	(b)	2,087,795	1,939,364	(c) 621,401	68,232
Stevedoring Industry	..	..	260,472	670,128	499,239	(d)
Joint Coal Board	..	(b)	866,500	284,135	724,178	635,645
Rent, repair and maintenance of buildings	1,398	12,958	82,478	50,043	38,722	20,081
Audit (proportion)	..	..	..	8,477	5,085	35,964
Pensions and Superannuation ..	..	..	..	3,791	4,742	7,998
Miscellaneous	5,305	854	(e) 839,533	1,064	6,345	19,549
Total	214,832	389,387	5,291,909	3,947,453	3,020,405	1,472,888

(a) Transport only, remainder provided under Defence and War and Repatriation Services. (b) Provided under War and Repatriation Services. (c) Provision also made under Administrative. (d) Provided under Department of Labour and National Service. (e) Includes Reserves of Stores and Materials, £764,098.

(xvii) *Department of Territories.* This Department was set up in June, 1941 to administer the Commonwealth External Territories of Papua, New Guinea, Norfolk Island and Nauru. In May, 1951, it took over administration of the Northern Territory from the Department of the Interior. Expenditure of the Department for the years 1946–47 to 1950–51 is shown hereunder. Particulars of expenditure on Territories are given in sub-para. (xxv) following.

EXPENDITURE : DEPARTMENT OF TERRITORIES.

(£.)

Details.	1946–47.	1947–48.	1948–49.	1949–50.	1950–51.
Administration — Salaries and general expenses	42,338	53,952	73,776	88,452	126,889
Shipping and mail services to the Pacific Islands	12,367	130	..	..	..
Superannuation	183	249	248	249	509
Rent, repair and maintenance of buildings	909	909	866	2,270	905
Total	55,797	55,240	74,890	90,971	128,303

(xviii) *Department of Immigration.* This Department was formed in July, 1945 to administer immigration, naturalization, etc. Prior to the formation of the Department, this work was carried out by a section of the Department of the Interior. Expenditure for the years 1946–47 to 1950–51 is shown in the following table :—

EXPENDITURE : DEPARTMENT OF IMMIGRATION.

(£.)

Details.	1946–47.	1947–48.	1948–49.	1949–50.	1950–51.
Administration — Salaries and general expenses	128,268	207,126	396,212	819,971	888,101
British migration	32,772	902,202	1,338,334	2,347,860	3,316,252
Displaced persons from Europe ..	..	163,710	1,334,953	4,041,772	874,914
Other Assisted Immigration ..	93	61,464	126,112	257,737	399,804
Reception and Training and Holding Centres—					
Equipment	..	28,691	207,844	744,656	800,396
Maintenance	..	..	(*a*)	(*a*)	3,519,565
Contributions to States towards establishment ..	..	12,753	30,647	9,115	25,011
Workers' Hostels	..	..	..	1,023,259	1,846,312
Medical and Hospital treatment for Migrants	..	3,852	25,031	310,724	756,196
Education in English Language ..	..	..	5,498	52,185	163,925
Miscellaneous	15,491	24,475	119,871	116,589	115,285
Superannuation	17	447	689	1,153	934
Rent, repair and maintenance of buildings	6,578	6,287	3,747	76,416	263,066
Total	183,219	1,411,007	3,588,938	9,801,437	12,969,761

(*a*) Included with Displaced persons from Europe.

(xix) *Department of Labour and National Service.* This Department was set up during the 1939–45 War for the purpose of mobilizing the nation's man-power and to deal with matters affecting industrial relations, welfare and training, and war housing. The Department's post-war functions relate to industrial matters, vocational training (other than University type) of discharged members of the Forces, the operation of the Commonwealth Employment Service, etc.

Prior to 1946–47, expenditure on this Department was included under Defence, War and Repatriation Services. Expenditure for the years 1946–47 to 1950–51 is shown in the following table :—

EXPENDITURE : DEPARTMENT OF LABOUR AND NATIONAL SERVICE.

(£.)

Details.	1946–47.	1947–48.	1948–49.	1949–50.	1950–51.
Administrative	1,031,651	1,178,557	1,242,624	1,675,015	1,900,185
Stevedoring Industry	(a)	(a)	(a)	(a)	420,409
Superannuation	37	507	684	756	2,033
Rent, repair and maintenance of buildings	95,742	97,676	84,882	99,797	90,164
Total	1,127,430	1,276,740	1,328,190	1,775,568	2,412,791

(a) Provided under Department of Shipping and Transport.

(xx) *Department of National Development.* This Department was formed early in 1950 to carry out the Government's policy for national development. Transferred to it from other Departments were—the Division of Industrial Development and the Regional Planning Division (from the former Department of Post-war Reconstruction) and the Bureau of Mineral Resources (from the former Department of Supply and Development). In May, 1951, the Fuel Branch of the Department of Fuel, Shipping and Transport was also transferred to it.

Expenditure on the services now performed by the Department of National Development is shown in the following table for the years 1946–47 to 1950–51:—

EXPENDITURE : DEPARTMENT OF NATIONAL DEVELOPMENT.

(£.)

Details.	1946–47.	1947–48.	1948–49.	1949–50.	1950–51.
Administrative—Salaries and general expenses	193,604	321,147	287,991	298,451	436,778
Bureau of Mineral Resources	(a)	(a)	(b)	(c) 78,284	282,309
Rent, repair and maintenance of buildings ..	33,388	31,679	30,502	24,816	51,955
Total	226,992	352,826	318,493	401,551	771,042

(a) Provided under Defence and War and Repatriation Services. (b) Provided under Department of Supply. (c) Also part provided under Department of Supply.

(xxi) *Commonwealth Scientific and Industrial Research Organization.* This organization was created in May, 1949, when the former Council for Scientific and Industrial Research, controlled by the Prime Minister's Department, was abolished.

The table below shows expenditure on the services now performed by the Commonwealth Scientific and Industrial Research Organization for the years 1938–39 and 1946–47 to 1950–51 :—

EXPENDITURE : COMMONWEALTH SCIENTIFIC AND INDUSTRIAL RESEARCH ORGANIZATION.

(£.)

Details.	1938–39.	1946–47.	1947–48.	1948–49.	1949–50.	1950–51.
Administrative—						
Salaries and general expenses	20,907	89,597	111,621	142,215	169,977	229,800
Investigations	174,424	1,125,680	1,409,689	1,615,119	1,737,343	2,225,420
Grants	..	..	1,935	6,388	22,917	21,535
Commonwealth Agricultural Bureaux—Contributions ..	10,134	10,427	20,358	20,358	20,358	20,358
Standards Association of Australia—Grant	8,000	19,500	24,000	27,000	30,000	33,000
Other Contributions, etc. ..	9,750	6,508	11,464	13,705	14,331	20,793
Rent, repair and maintenance of buildings	..	..	..	..	12,277	15,122
Total	223,215	1,251,712	1,579,067	1,824,785	2,007,203	2,566,028

(xxii) *Postmaster-General's Department.* From the beginning of 1949–50, Broadcasting Services were separated from the Postmaster-General's Department. In years prior to 1949–50 part of the expenditure on these services is included with the Postmaster-General's Department. Details of the expenditure of this Department for the years 1938–39 and 1946–47 to 1950–51 are given in the following table :—

EXPENDITURE : POSTMASTER-GENERAL'S DEPARTMENT.
(£.)

Details.	1938–39.	1946–47.	1947–48.	1948–49.	1949–50.	1950–51.
Salaries, stores and materials, mail, engineering services, etc.	11,563,510	22,617,000	27,854,862	36,457,765	42,805,882	49,652,673
Public Works Staff—Salaries, etc.	60,000	68,000	68,000	94,000	96,000	(a)
Audit (proportion)	11,660	13,000	13,000	13,000	17,000	17,000
Pensions and Retiring Allowances	75,113	30,329	27,989	26,986	23,058	20,020
Superannuation	316,747	428,445	575,103	613,885	641,546	775,279
Rents, repairs, etc.	114,183	223,310	335,978	461,329	599,302	733,471
Interest	1,398,690	1,072,607	984,404	924,164	864,268	757,753
Sinking Fund	1,128,933	1,769,210	1,857,680	1,950,552	2,048,014	2,150,213
Exchange	359,397	428,827	396,143	377,437	417,201	696,005
Loans, Redemption and Conversion expenses	..	104,973	57,985	..	..	..
Total	15,028,233	26,755,701	32,171,144	40,919,118	47,512,271	54,802,414

(a) Expenditure charged to various works.

Further details of expenditure for 1949–50 on account of the Postmaster-General's Department appear in Chapter V.—Transport and Communication (part I., Posts, Telegraphs, Telephones and Wireless).

(xxiii) *Broadcasting Services.* Since 1949–50 all expenditure on broadcasting services has been brought together in one section. Previously these services had been financed partly by the Postmaster-General's Department and partly from the Wireless Broadcasting Trust Account. Details of expenditure for 1949–50 and 1950–51 are shown in the following table :—

EXPENDITURE : BROADCASTING SERVICES.
(£.)

Details.	1949–50.	1950–51.
Australian Broadcasting Control Board	36,665	58,900
Australian Broadcasting Commission—Salaries, general and programme expenses	1,539,314	2,010,293
Technical and other Services—Postmaster-General ..	1,290,430	1,508,518
Repairs and maintenance	5,748	12,169
Audit (proportion)	..	900
Total	2,872,157	3,590,780

(xxiv) *Railways.* The Commonwealth Railways, previously administered by the Department of the Interior, were transferred in March, 1950 to the newly-formed Department of Fuel, Shipping and Transport (later Shipping and Transport). The expenditure on railways for the years 1938–39 and 1946–47 to 1950–51 is shown below.

EXPENDITURE : COMMONWEALTH RAILWAYS.

(£.)

Details.	1938–39.	1946–47.	1947–48.	1948–49.	1949–50.	1950–51.
Working expenses—						
Trans-Australian ..	493,463	740,556	900,212	1,055,111	1,165,279	1,456,886
North Australia ..	55,186	52,222	55,489	55,485	74,090	69,324
Central Australia ..	214,374	439,252	485,517	656,935	727,689	867,206
Aust. Capital Territory ..	7,365	13,195	15,013	17,666	18,689	26,260
Interest	392,194	341,189	320,116	312,581	300,731	298,205
Sinking Fund	75,230	110,575	116,095	121,889	127,978	134,373
Exchange	62,674	80,516	70,456	67,289	74,155	122,318
Contribution to South Australia (Port Augusta–Port Pirie Railway)	20,000	20,000	20,000	20,000	20,000	20,000
Superannuation	13,467	19,381	27,777	27,165	27,979	34,005
Freight concessions—North Australia and Central Australia Railways ..	..	..	..	203,841	196,339	296,538
Miscellaneous	17,088	*a* 104,286	(*a*)77,936	(*a*)56,358	(*a*)58,972	(*a*)55,516
Total	1,351,041	1,921,172	2,088,611	2,594,320	2,791,901	3,380,631

(*a*) Includes loans, redemption and conversion expenses, 1946–47, £54,648; 1947–48, £20,274; 1948–49, £903; 1949–50, £6,808; and 1950–51, £402.

Additional details of the financial operations of the Commonwealth Railways to 1949–50 are given in Chapter V.—Transport and Communication (part B, Railways).

(xxv) *Territories.* The following table shows the expenditure on account of territorial services for the years 1938–39 and 1946–47 to 1950–51. The Australian Capital Territory is administered by the Department of the Interior, and the Department of Territories controls the external territories and the Northern Territory. The expenditure has been grouped in one table for convenience. Information in greater detail will be found in the *Finance Bulletins* issued by this Bureau.

EXPENDITURE : TERRITORIES.

(£.)

Details.	1938–39.	1946–47.	1947–48.	1948–49.	1949–50.	1950–51.
Internal—						
Australian Capital(*a*)	637,228	941,275	1,045,181	1,240,131	1,519,090	1,923,726
Northern (*a*) ..	402,899	819,613	861,180	1,105,154	1,421,478	1,814,316
External—						
Papua	48,830	1,526,342	2,278,043	3,418,351	4,348,427	4,518,034
New Guinea ..	5,532					
Norfolk Island ..	5,471	4,075	4,076	4,540	4,479	4,481
Total ..	1,099,960	3,291,305	4,188,480	5,768,176	7,293,474	8,260,557

(*a*) Excludes Railways, *see* para. XXIV.

3. **Subsidies and Bounties.**—The following table shows details, for the years 1938–39 and 1946–47 to 1950–51, of Commonwealth expenditure from revenue on subsidies, bounties and assistance to primary producers. Expenditure on special relief such as drought, frost, flood and bush fire, etc., is not included, nor are items of expenditure grouped under " Primary Production—Self Balancing Items ". These items of expenditure are from the proceeds of certain taxes on primary products and profits from

marketing schemes, which have been paid to trust funds for the purpose of price or other stabilization schemes or for distribution to producers. Information relating to these schemes and other assistance to primary producers is given in Chapter XX.—Agricultural Production.

Previously, particulars of price stabilization subsidies and assistance to primary producers were included in this chapter partly with expenditure on War (1939–45) and Repatriation Services and partly with departmental expenditure. As the items included with War (1939–45) and Repatriation Services expenditure are no longer regarded as war expenditure, and because of the importance of the subject, they have now been combined in the one table following.

Details of price stabilization subsidies and of various forms of assistance to primary producers for earlier years may be found on pages 414 and 1014–5 respectively of Official Year Book No. 38.

EXPENDITURE: SUBSIDIES AND BOUNTIES.

(£'000.)

Item.	1938–39.	1946–47.	1947–48.	1948–49.	1949–50.	1950–51.
Subsidies—						
Price Stabilization—						
Tea	..	4,414	6,840	4,667	6,986	7,129
Potatoes	..	3,012	2,703	1,065	..	..
Whole Milk	..	2,253	2,157	564	..	..
Recoupment of Basic Wage Increases	..	2,307	609	..	..	..
Imports (other than Tea)	..	3,691	8,539	7,605	572	..
Coal	..	959	2,352	232	..	(a) 1,704
Firewood	..	315	257	5	..	..
Rubber	..	333	..	..	..	..
Raw Wool	..	3,417	9,227	..	..	..
Tobacco	..	618	41	..	..	..
Other	..	1,322	2,306	682	..	140
Total	..	22,641	35,031	14,820	7,558	8,973
Assistance to Primary Production—						
Dairy Industry	..	1,739	7,018	4,653	8,008	(b)14,998
Superphosphate	..	2,987	3,491	3,374	3,657	263
Nitrogenous Fertilizers	..	187	130	164	781	599
Jute Products for Primary Industry	..	992	164	..	2	..
Assistance to Stock Feeders	..	1,000	5	21	..	..
Apple and Pear Industry	..	811	..	..	..	..
Wheat Acreage Restrictions—Western Australia	..	2	..	..	..	..
Wheat Industry	..	1	..	..	622	683
Other	..	..	..	37	..	36
Total	..	7,719	10,808	8,249	13,070	16,579
Total Subsidies	..	30,360	45,839	23,069	20,628	25,552
Bounties—						
Tractor	..	23	20	37	54	90
Raw Cotton	115	6	9	..	..	..
Wool Products	..	..	..	..	..	14,875
Wine Export	..	(c) 65	14	2	1	..
Other	(d) 121	1	..	..	..	20
Total Bounties	236	95	43	39	55	14,985
Grand Total	236	30,455	45,882	23,108	20,683	40,537

(a) Imported coal. (b) Dairy products. (c) Expenditure from Wine Export Encouragement Fund to which collections of excise on fortifying spirit and grape must were credited. (d) Includes Sulphur Bounty, £88,000.

4. **Capital Works and Services.**—The expenditure on capital works and services during the years 1938–39 and 1946–47 to 1950–51 was as follows :—

EXPENDITURE : CAPITAL WORKS AND SERVICES.
(£.)

Details	1938–39.	1946–47.	1947–48.	1948–49.	1949–50.	1950–51.
Departmental—						
Defence	1,349,123	*a*5,236,514	*a*3,287,751	*b*5,624,480	12,500,496	*a*75,124,849
Other	634,046	8,679,030	15,646,373	22,126,639	40,605,233	31,812,693
Business Undertakings	3,842,955	7,275,152	8,407,646	12,742,807	17,430,706	36,570,025
Territories	739,144	1,226,020	1,447,568	2,627,638	3,160,952	5,085,470
Total ..	6,565,268	22,416,716	28,789,338	43,121,564	73,697,387	148,593,037

(*a*) Provided under ordinary Defence Services. (*b*) Includes amount provided under ordinary Defence Services.

A detailed statement of expenditure on Capital Works and Services from Revenue, Trust and Loan Funds will be found in § 5, page 795.

5. **Defence, War and Repatriation Services.**—Full details concerning the expenditure from Consolidated Revenue upon Defence, War and Repatriation Services will be found in §§ 6 and 7, pages 796–8.

Division IV.—Payments to or for the States.

1. **General.**—An outline of the provisions of the Constitution requiring the Commonwealth to make payments to the States, and of the systems which followed, is given in earlier issues of the Official Year Book (*see* No. 37, pages 633 to 638). In the following paragraphs reference is made to the agreements at present in operation.

2. **Financial Agreement.**—Details of the Financial Agreement between the Commonwealth and the States are given in Official Year Book No. 37, pages 685 to 690. Under this agreement the Commonwealth agreed to contribute £7,584,912 per annum towards interest payable on the State Debts for a period of 58 years from 1st July, 1927. This amount is to be distributed amongst the States as follows :—New South Wales, £2,917,411 ; Victoria, £2,127,159 ; Queensland, £1,096,235 ; South Australia, £703,816 ; Western Australia, £473,432 ; Tasmania, £266,859 ; Total, £7,584,912.

These amounts are equal to the sums paid by the Commonwealth to each State in the year 1926–27 at the rate of 25s. per head of population, the rate at which the Commonwealth had contributed annually to the States since 1st July, 1910 as compensation for the States relinquishing, after Federation, the right to levy Customs and Excise Duties.

In addition, the Commonwealth agreed to pay to the National Debt Sinking Fund for redemption of State Debts the following amounts :—(*a*) an annual contribution of 2s. 6d. per cent. of the net public debt of the States at 30th June, 1927 for a period of 58 years from 1st July, 1927 (in respect of New South Wales net public debt from 1st July, 1928) ; (*b*) an annual contribution of 5s. per cent. on new borrowings (except those for redemption, conversion or funding a State deficit) after 1st July, 1927 for a period of 53 years from the date of raising ; (*c*) an annual contribution of 5s. per cent. on loans raised to meet revenue deficits occurring between 1st July, 1927 and 30th June, 1935 for a period of 39 years from 1st July, 1944.

3. **Special Grants.**—The Constitution provides in Section 96 for the granting of special financial assistance to the States. Western Australia has received financial assistance each year since 1910–11. In 1912 a grant was made to Tasmania, the amount payable in the first year, 1912–13, being £95,000, which was to be progressively reduced by £10,000 in each successive year. The Tasmania Grant Act 1913 provided for an addition to this grant, bringing the amount payable to £85,000 per annum to the year 1921–22, after which annual grants of varying magnitude were made. South Australia received £360,000 in 1929–30 and further grants in each successive year.

In 1933 the Commonwealth Government appointed the Commonwealth Grants Commission of three members to inquire into and report upon claims made by any State for a grant of financial assistance and any matters relevant thereto.

Applications have been received from South Australia, Western Australia and Tasmania during each year from 1933 and the recommendations of the Commission in respect of the years 1938–39 and 1947–48 to 1951–52 were as follows :—

COMMONWEALTH GRANTS COMMISSION : GRANTS RECOMMENDED.

(£.)

State.	1938–39.	1947–48. (a)	1948–49. (a)	1949–50. (b)	1950–51. (c)	1951–52. (d)
South Australia ..	1,040,000	2,318,000	2,850,000	4,174,000	5,332,000	4,558,000
Western Australia ..	570,000	2,977,000	3,600,000	5,618,000	5,839,000	5,088,000
Tasmania	410,000	747,000	1,000,000	1,262,000	1,004,000	876,000
Total ..	2,020,000	6,042,000	7,450,000	11,054,000	12,175,000	10,522,000

(a) Includes additional grants recommended : 1947–48, Western Australia, £1,000,000 ; 1948–49, South Australia, £600,000, Tasmania, £100,000, total £700,000. (b) Includes the excess of the assessed grant over the special grant received for 1947–48 : South Australia, £324,000, Western Australia £768,000, Tasmania, £262,000. (c) Includes the excess of the assessed grant over the special grant received for 1948–49 : South Australia, £762,000, Western Australia, £1,089,000, Tasmania, *Dr.* £96,000. (d) Includes the excess of the assessed grant over the special grant received for 1949–50 : South Australia, £308,000, Western Australia, £88,000, Tasmania, £126,000.

4. **States Grants (Tax Reimbursement) Acts.**—Details of the States Grants (Income Tax Reimbursement) Act 1942 and the States Grants (Entertainments Tax Reimbursement) Act 1942 are given in earlier issues of the Official Year Book (*see* No. 37, pages 635 to 637). These acts provided for grants to the States as compensation for vacating the fields of Income Tax and Entertainments Tax. Grants under these acts ceased after 1945–46 and were replaced by grants under the States Grants (Tax Reimbursement) Act 1946–1948. This Act provided for the following reimbursement grants to be paid to the States, the figures shown relating to 1946–47 and 1947–48 respectively :—New South Wales, £16,477,000, £18,536,625 ; Victoria, £8,860,000, £9,967,500 ; Queensland, £6,601,000, £7,426,125 ; South Australia, £3,458,000, £3,890,250 ; Western Australia, £3,384,000, £3,807,000 ; Tasmania, £1,220,000, £1,372,500 ; Total, £40,000,000, £45,000,000.

For 1948–49 and subsequent years an amount is to be determined by increasing the aggregate grants paid in 1947–48 (£45,000,000) by the same proportion as the aggregate population of the six States at the beginning of the financial year increases over the aggregate population of the six States at 1st July, 1947. This amount is to be further increased by a percentage equal to the percentage increase in average wages per person employed in the financial year preceding the year in which the reimbursement grants are to be paid over the average wages per person employed in 1945–46. The amount so determined will be the aggregate of the reimbursement grants and is to be distributed to the States in the following proportions :—

(i) 1948–49 to 1956–57 :—(*a*) The following percentages of the grant shall be distributed in the proportion indicated by the distribution of the aggregate reimbursement grant in 1946–47 and 1947–48 viz. :—1948–49, 90 per cent ; 1949–50, 80 per cent. ; and thus decreasing by 10 per cent. each year to 10 per cent. in 1956–57, and (*b*) the remainder in the proportion indicated by the "adjusted" population* for each State.

(ii) 1957–58 and subsequent years :—the proportion indicated by the "adjusted" population for each State.

It is provided that, if the application of the foregoing formula for distribution of the aggregate grants causes the amount of the reimbursement grant for any State to fall below the grant for 1946–47, the grant payable will be the same as that for 1946–47 and the balance of the aggregate grant is to be distributed between the remaining States in the proportions above.

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* In the "adjusted" population allowances are made for differences in the proportion of school children in the population and the density of the population in each state.

An amount equal to arrears of State income taxes collected by the States in any year is to be deducted from the reimbursement grants for that year. The aggregate amount so deducted less any refunds of State income taxes made by the Commonwealth is to be repaid in the event of uniform taxation ceasing to operate. This amount bore interest at 3 per cent. up to 30th June, 1946, but thereafter, under the new arrangement, will bear no interest.

In 1950–51 an amount of £5,000,000 was paid to the States under the States Grants (Additional Tax Reimbursement Act) 1950. As this was considered as a non-recurring grant the formula outlined above was not amended.

The payment of the tax re-imbursement grant in any year to any State is subject to the condition that that State does not impose a tax on incomes in that year.

5. **Additional Financial Assistance, 1949–50 and 1950–51.**—(i) *Coal Strike Emergency Grant.* During 1949–50 State business undertakings suffered considerable losses as a result of the coal strike. Towards meeting these losses the Commonwealth made grants totalling £8,000,000 to the States. The amounts paid to each State were :—New South Wales, £3,261,000 ; Victoria, £1,830,000 ; Queensland, £1,309,000 ; South Australia, £687,000 ; Western Australia, £661,000 ; and Tasmania, £252,000.

(ii) *Special Financial Assistance Grant.* During 1950–51 there were heavy additions to the financial needs of the States and in June, 1951 a special grant of £15,000,000 was made. The amounts granted to each State were—New South Wales, £6,250,000 ; Victoria, £4,750,000 ; Queensland, £2,000,000 ; South Australia, £800,000 ; Western Australia, £1,000,000 ; and Tasmania, £200,000.

6. **Grants for Road Construction.**—(i) *Main Roads Development Act* 1923–25, *Federal Aid Roads Acts* 1926, 1931 *and* 1936, *and Federal Aid Roads and Works Act* 1937. Particulars of the agreements between the Commonwealth and the States under these Acts are referred to in earlier issues of the Year Book (*see* issue No. 38, pp. 787–8) and in the *Finance Bulletins* published by this Bureau.

(ii) *Commonwealth Aid Roads and Works.* The Federal Aid Roads and Works Agreement expired on 30th June, 1947, and was replaced by the Commonwealth Aid Roads and Works Act 1947, which provided for the following grants to be made to the States for the three years commencing on 1st July, 1947 :—

(*a*) An amount equal to 3d. a gallon customs duty and 2d. a gallon excise duty on petroleum and shale products (except benzol, on which the proportion of excise duty was 1½d. a gallon) as specified in Customs Tariff Item 229C and Excise Tariff Item 11. Petroleum and shale products used in civil aircraft were excluded.

(*b*) £1,000,000 in each year.

These grants were distributed to the States in the following proportions :—

(1) Five per cent. to Tasmania ;

(2) Ninety-five per cent. distributed between the remaining States as to three-fifths according to population at 30th June, 1947, and two-fifths according to area.

The amount of the grant received by the States under (*a*) above was to be expended on the construction, reconstruction, maintenance and repair of roads and (not exceeding one-sixth) on other works connected with transport. The grant under (*b*) above was to be expended on construction and maintenance of roads in sparsely populated areas, timber country and rural areas or on purchase of road-making plant for use in those areas.

The Act also provided £500,000 per annum to be expended by the Commonwealth on strategic roads and roads of access to Commonwealth property and £100,000 for the promotion of road safety practices.

Amendments to the Act in 1948 and 1949 increased the grant under (*b*) above to £2,000,000 in 1948–49 and £3,000,000 in 1949–50.

In each of the years 1948–49 and 1949–50 an additional £100,000 was paid to the Commonwealth Aid Roads and Works Trust Account from the Department of Transport's vote for expenditure on the promotion of road safety practices.

On the expiration of this Act the Commonwealth Aid Roads Act 1950 provided, for a period of five years from 1st July, 1950, an amount equivalent to the sum of (i) 6d. per gallon of customs duty and (ii) 3½d. per gallon of excise duty collected on petroleum and shale products as specified in Customs Tariff Item 229C and Excise Tariff Item 11 (excluding such products used in civil aircraft). Out of this amount the following grants are to be made to the States for construction and maintenance of roads and the purchase of road-making plant :—

(*a*) Sixty-five per cent. of the amount less £600,000 per annum for expenditure on roads, and

(*b*) Thirty-five per cent. of the amount for expenditure on roads in rural areas other than highways, trunk or main roads.

Of the former amount, one-sixth may be spent on other works connected with transport by road or water. Five per cent. of the grants to the States is payable to Tasmania. Fifty-seven per cent. is to be divided between the other States in proportion to their populations at 30th June, 1947, and 38 per cent. according to area. In addition, the Commonwealth may spend each year £500,000 on strategic roads and £100,000 on the promotion of road safety practices.

7. **Amounts Paid.**—(i) *Year* 1950–51. The following table shows particulars of the amounts paid to each of the States during 1950–51 as grants for the several purposes referred to in the preceding paragraphs.

PAYMENTS BY THE COMMONWEALTH TO OR FOR THE STATES, 1950–51.(*a*)

(£'000.)

Particulars.	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	Total.
Interest on States' Debts ..	2,917	2,127	1,096	704	474	267	7,585
Sinking Fund on States' Debts (*b*)	876	452	295	276	245	97	2,241
Special Grants	..	..	..	5,332	5,839	1,004	12,175
Tax Reimbursement Grants	28,337	16,286	11,458	6,039	5,759	2,228	70,107
Additional Tax Reimbursement Grants	2,027	1,160	814	429	410	160	5,000
Special Financial Assistance	6,250	4,750	2,000	800	1,000	200	15,000
Imported Houses—Grants..	..	..	150	20	..	..	170
Commonwealth Aid Roads and Works (*c*)	3,819	2,357	2,600	1,490	2,600	677	13,543
Price Control Reimbursement	259	187	104	57	59	38	704
Western Australian Waterworks Grant	..	..	..	..	219	..	219
Coal Mining Industry—Long Service Leave	296	1	51	..	21	5	374
Total	44,781	27,320	18,568	15,147	16,626	4,676	127,118

(*a*) Excludes relief to primary producers and other payments for medical research, etc. (*b*) Paid to National Debt Sinking Fund. (*c*) Paid to Trust Fund.

(ii) 1901 *to* 1951. The following table shows particulars of the amounts paid to each State since Federation, according to the several classes of grants.

PAYMENTS BY THE COMMONWEALTH TO OR FOR THE STATES TO 30th JUNE, 1951.(*a*)

(£'000.)

Particulars.	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	Total.
Section 87 of Constitution—1900–01 to 1909–10 ..	27,606	19,815	8,895	6,148	8,727	2,602	73,793
Surplus Revenue Acts—1910–11 to 1926–27 ..	41,634	31,341	15,184	9,925	6,899	4,367	109,350
Financial Agreement—1927–28 to 1950–51 ..	84,107	58,058	31,060	21,173	15,239	7,483	217,120
Special Grants (*b*) ..	..	..	..	35,269	34,381	15,077	84,727
Income Tax Reimbursement Grants (*c*)	55,419	24,331	22,212	9,037	9,492	3,409	123,900
Income Tax Reimbursement—Special Grants (*c*) ..	..	..	..	1,654	913	119	2,686
Entertainments Tax Reimbursement Grants (*d*) ..	603	1,399	..	364	368	138	2,872
Tax Reimbursement Grants (*e*)	109,977	61,203	44,408	23,347	22,535	8,448	269,918
Additional Tax Reimbursement (*f*)	2,027	1,160	814	429	410	160	5,000
Special Financial Assistance (*g*)	6,250	4,750	2,000	800	1,000	200	15,000
Price Control Reimbursement (*h*)	722	501	318	198	173	95	2,007
Non-recurring Grants from Excess Receipts, 1934–35 to 1936–37	1,188	827	433	265	201	86	3,000
Special Assistance (*i*) ..	4,668	2,749	1,916	927	1,271	388	11,919
Grants for Road Construction, 1922–23 to 1950–51(*j*)	26,160	16,445	17,803	10,414	17,939	4,672	93,433
Total	360,361	222,579	145,043	119,950	119,548	47,244	1,014,725

(*a*) Includes non-recurring grants from excess receipts, but excludes amounts provided for relief of wheat-growers and other primary producers and other payments for medical research, etc. (*b*) Under various States Grants Acts. (*c*) Under States Grants (Income Tax Reimbursement) Act 1942. (*d*) Under States Grants (Entertainments Tax Reimbursement) Act 1942. (*e*) Under States Grants (Tax Reimbursement Act) 1946–1948. (*f*) Under States Grants (Additional Tax Reimbursement) Act 1950. (*g*) Under States Grants (Special Financial Assistance) Act 1951. (*h*) Under States Grants (Administration of Controls Reimbursement) Act 1948. (*i*) Unemployment Relief, Metalliferous Mining, Forestry, Local Public Works, Coal Strike Emergency Grant, etc. (*j*) Under Main Roads Development, Federal Aid Roads, Federal Aid Roads and Works, Commonwealth Aid Roads and Works and Commonwealth Aid Roads Acts.

For particulars of the amounts paid to the several States during each of the years 1941–42 to 1950–51 *see Finance Bulletin* No. 42 published by this Bureau. This publication also contains details of the amounts paid to each State since 1922–23 under the various roads acts.

Particulars of special Commonwealth grants for the relief of primary producers are not included in the foregoing tables. For details *see* Chapter XX.—Agricultural Production. *See also* par. 3. Subsidies and Bounties of the preceding division of this chapter.

§ 3. Commonwealth Trust Funds.

1. **Receipts, Expenditure and Balances, 1950–51.**—The following table shows the opening and closing balances, and receipts and expenditure of some of the more important Trust Funds of the Commonwealth for the year ended 30th June, 1951.

COMMONWEALTH TRUST FUNDS: RECEIPTS, EXPENDITURE AND BALANCES, 1950–51.
(£'000.)

Fund.	Balance at 30th June, 1950.	Year ended 30th June, 1951.		Balance at 30th June, 1951.
		Receipts.	Expenditure.	
Aluminium Production	18	600	573	45
Australian New Guinea Production	1,118	4,176	3,782	1,512
Citizens' National Emergency Loans	100	..	5	95
Coal Mining Industry Long Service Leave	207	388	55	540
Coinage	3,891	1,763	1,763	3,891
Commonwealth Aid Roads	..	14,142	12,443	1,699
Commonwealth Aid Roads and Works	949	..	948	1
Defence Forces Retirement Benefits	2,423	1,233	489	3,167
Diverted Cargoes	139	..	25	114
Enemy Subjects	1,120	92	84	1,128
Flax Production	159	435	342	252
Import Procurement Suspense	754	(a) — 186	117	451
Insurance Deposits	2,803	294	33	3,064
International Post-war Relief and Rehabilitation	314	1,224	839	699
Lend-Lease Settlement	1,922	14	91	1,845
Liquid Fuel Equalization	842	88	..	930
Marine War Risks Insurance	6	(a) ..	6	..
National Debt Sinking	13,969	41,858	45,545	10,282
National Welfare	131,115	133,665	114,983	149,797
Parliamentary Retiring Allowances	31	41	17	55
Public Trustee and Custodian	1,351	579	18	1,912
Strategic Stores and Equipment Reserve	..	57,048	9,038	48,010
Superannuation	19,495	4,951	2,207	22,239
Temple Society	705	9	266	448
War Damage	372	(a) — 63	148	161
War Gratuity	36,751	30,630	61,447	5,934
War Service Homes	..	25,564	25,564	..
War Service Homes—Insurance	489	88	34	543
Wheat Industry Stabilization	358	..	49	309
Wheat Prices Stabilization	31,206	13,972	17,000	28,178
Wine Industry Assistance	500	..	..	500
Wool Contributory Charge	3,254	1,654	901	4,007
Wool Industry	7,718	214	104	7,828
Wool Research	794	348	330	812
Wool (Reserve Prices)	..	43,283	..	43,283
Other	13,774	(a)244,331	238,785	19,320
Total	278,647	622,435	538,031	363,051

(a) Includes surplus balances transferred to Consolidated Revenue Fund:—Import Procurement Suspense Trust Account, £250,000; Marine War Risks Insurance Fund, £6,000; War Damage Fund, £90,000; Other Funds, £779,000; Total, £1,125,000. These items have been treated as reductions of receipts.

2. **Summary, 1938–39 and 1946–47 to 1950–51.**—In the following table the balances and total receipts and expenditure of the Trust Funds are shown for each of the years 1938–39 and 1946–47 to 1950–51.

COMMONWEALTH TRUST FUND.
(£'000.)

Heading.	1938–39.	1946–47.	1947–48.	1948–49.	1949–50.	1950–51.
Balance brought forward	25,609	132,274	171,135	196,478	245,194	278,647
Receipts	84,167	324,178	301,981	370,294	410,174	622,435
Expenditure	85,550	285,317	276,638	330,578	376,721	538,031
Balance carried forward	24,226	171,135	196,478	245,194	278,647	363,051

§ 4. Commonwealth Loan Funds.

Brief historical notes relating to the Commonwealth Loan Fund are given in earlier issues of the Official Year Book (*see* No. 37, page 640). In the following table details are given of the net expenditure from the Commonwealth Loan Fund for the years 1938–39 and 1946–47 to 1950–51 and of the aggregate expenditure to 30th June, 1951. The figures shown represent "net" loan expenditure, i.e., after adjustments have been made on account of amounts expended in earlier years.

COMMONWEALTH NET EXPENDITURE FROM LOAN FUND.

(£.)

Particulars.	1938–39.	1946–47.	1947–48.	1948–49.	1949–50.	1950–51.	Total to 30th June, 1951.
War (1914–18) and Repatriation Services	..	..	..	..	..	..	372,989,867
Defence, War (1939–45) and Repatriation Services	..	37,893,997	..	−18,733,000 (a)	25,483,273	28,773,061 (b)	1,613,686,112
Capital Works and Services—							
Defence	1,912,284	..	..	..	..	−11,884	(c) 8,682,064
Civil Aviation, Buildings and Works	..	..	..	..	..	..	213,086
Ships, Yards and Docks ..	−305,351	..	−164,943	−3,624	..	..	7,694,461
Lighthouses, Works and Services	−1,000	..	..	..	..	..	634,490
River Murray Waters Act ..	..	..	..	..	..	..	2,105,625
Postmaster-General's Department—							
Telegraph and Telephone Construction ..	..	..	..	..	..	..	36,057,558
Buildings, Works, Sites, etc.	−1,290	− 14	−1,349	−1,023	−7,409	− 797	4,068,818
Subscription to Capital of Amalgamated Wireless Ltd.	..	..	..	..	..	..	300,000
Radio Stations and Equipment ..	..	..	..	..	..	..	104,538
Serum and Health Laboratories	..	..	..	..	..	..	80,149
Other Health Buildings and Services	..	..	..	..	..	..	21,864
Repatriation Buildings, etc...	..	..	..	..	..	..	47,026
War Service Homes (d) ..	..	..	..	..	..	..	7,329,523
Railways..	− 339	− 1,714	−4,519	−1,026	− 995	− 1,118	13,758,118
Territories (e)	−6,768	−12,376	−8,644	−6,105	−7,384	−16,006	8,745,124
Immigration	..	..	..	..	..	..	1,680,834
Assistance to States—							
Unemployment Relief ..	−3,822	..	..	..	..	..	2,667,020
Mining..	..	..	..	..	..	..	283,750
Forestry	..	..	..	..	..	..	322,000
Farmers' Debt Adjustment	2,000,000	..	..	..	..	..	7,967,000
Roads	..	..	..	..	..	..	249,686
Wire and Wire Netting ..	..	..	..	..	..	..	608,849
Drought Relief	..	..	..	..	..	..	1,844,205
Housing	..	11,015,000	13,305,000	14,492,000	17,215,000	21,640,000	84,462,000
Wheat Bounty	..	..	..	..	..	..	3,429,571
Other	..	..	..	..	..	..	1,381,094
Total Capital Works and Services	3,593,714	11,000,896	13,125,545	14,480,222	17,199,212	21,610,195	194,738,453
International Bank Dollar Loan (f)	..	..	..	..	..	4,043,785	4,043,785
GRAND TOTAL.. ..	3,593,714	48,894,893	13,125,545	−4,252,778	42,682,485	54,427,041	2,185,458,217

(*a*) Repayment of surplus balances of Defence Trust Accounts. (*b*) Comprises £24,911,484 expenditure under War Services Homes Act 1914–1949, and £3,861,577 financial assistance to the States in connexion with War Service Land Settlement. (*c*) Excludes amounts charged to War Loan Fund. (*d*) In addition, £13,045,408 was expended from War Loan Fund prior to 1923–24. (*e*) Includes Administration and other Public Buildings, Australian Capital Territory. (*f*) Payment to National Debt Sinking Fund. *See* page 838.

NOTE.—Minus sign (−) indicates excess of repayments to Loan Fund.

Information relating to the Public Debt of the Commonwealth is given in Part D. Commonwealth and State Public Debt (of this chapter).

§ 5. Commonwealth Expenditure on Capital Works and Services.

In the following table details are given of Commonwealth expenditure on capital works and services during each of the years 1946–47 to 1950–51 and of the aggregate to 30th June, 1951. The table covers all expenditure on capital works and services made from the Consolidated Revenue Fund, the Loan Fund and Trust Funds.

COMMONWEALTH EXPENDITURE ON CAPITAL WORKS AND SERVICES FROM REVENUE, TRUST AND LOAN FUNDS.

(£'000.)

Particulars.	1946–47.	1947–48.	1948–49.	1949–50.	1950–51.	1901–2 to 1950–51—Total.(a)
Defence and War—						
Navy	2,759	302	768	4,240	4,262	46,374
Army	646	191	249	1,154	7,153	76,475
Air Force	188	185	323	2,266	1,592	52,967
Munitions and other	1,272	2,309	4,205	4,786	(b) 62,055	164,498
Civil Aviation	2,382	3,541	2,607	3,805	4,845	23,548
Ships—Construction and purchase ..	1,904	1,083	294	2,000	1,462	30,368
Docks, yards and equipment ..	364	309	198	78	95	13,605
Lighthouses	35	16	22	49	50	1,812
Snowy Mountains Hydro-electric Power Act	..	..	..	2,497	6,077	8,574
Health	5	12	16	477	679	2,151
Commonwealth Scientific and Industrial Research Organization ..	..	106	81	88	145	556
War Service Homes	2,114	5,908	8,396	14,551	24,911	77,524
Immigration	3	18	2,744	7,304	7,168	18,918
Postmaster-General's Department ..	5,968	8,218	12,503	16,560	34,739	166,358
Broadcasting Services	..	..	..	157	211	368
Railways—						
Commonwealth	136	298	224	481	1,459	17,084
Other	47	22	13	13	1	2,543
Locomotives and rolling-stock ..	1	..	..	..	..	2,333
Coal Industry Act 1946	..	..	1,650	4,232	3,000	8,882
Christmas Island Phosphate Co.—Acquisition of assets	..	..	1,724	..	156	1,88
Territories—						
Australian Capital Territory ..	779	1,076	1,844	2,418	3,697	22,202
Northern Territory	558	407	649	708	1,361	6,268
Papua-New Guinea	..	..	162	28	11	380
Norfolk Island	..	..	..	..	..	2
Subscriptions to Capital—						
Commonwealth Oil Refineries ..	..	..	..	..	..	425
National Oil Pty. Ltd.	..	..	..	225	..	225
Amalgamated Wireless (Australasia) Ltd.	..	..	156	..	158	814
Qantas Empire Airways	415	2,455	900	200	377	4,347
British Commonwealth Pacific Airlines	..	500	500	..	..	1,000
Commonwealth Engineering Co. ..	100	..	..	102	..	202
New Guinea Resources Prospecting Co. Ltd.	..	..	..	..	13	13
Advances—						
Australian National Airlines Commission	1,800	1,500	700	..	..	4,370
Aluminium Production Commission	27	30	126	125	300	625
Overseas Telecommunications Commission	1,425	..	..	225	..	1,650
Beaufort Homes	91	300	..	..	..	391
Glen Davis Shale Oil Project ..	..	..	186	208	177	571
All other works, buildings, etc. ..	1,077	1,641	2,152	4,705	7,321	(c) 28,513
Total	24,096	30,427	43,392	73,682	173,475	788,816

(a) Includes properties transferred from the States. (b) Includes Strategic Stores and Equipment Reserve, £57,045,000. (c) Includes River Murray Waters Act :—Works, £3,017,000 ; War Memorial, Canberra, £292,000 ; Solar Observatory, Mount Stromlo, £133,000 ; Forestry School, Canberra, £36,000.

§ 6. Commonwealth Expenditure on Defence Services.

Details of the expenditure on Defence Services by the Departments of Defence, Navy, Army, Air, and Supply are shown in the following table. The expenditure shown under Department of Supply includes the former Departments of Shipping and Fuel, Supply and Development, Supply and Shipping, and Munitions. This table now relates to Defence Services only. In previous issues particulars of expenditure on War (1939–45) and Repatriation Services were also included. These are now shown in the table in the following section, which includes, in addition, particulars of expenditure on the 1914–18 War formerly shown in a separate table.

The figures represent the combined expenditures from revenue, trust and loan funds for the years 1938–39 and 1946–47 to 1950–51.

DEFENCE SERVICES: COMMONWEALTH EXPENDITURE FROM REVENUE, TRUST AND LOAN FUNDS.

(£'000.)

Items.	1938–39.	1946–47.	1947–48.	1948–49.	1949–50.	1950–51.
Department of Defence—						
Administrative and general expenses	46	132	218	231	280	379
Buildings, works, etc.	11	5	7	4	7	20
Maintenance and rent	4	3	7	7	8	7
Audit and pensions	..	5	7	8	8	16
Total	61	145	239	250	303	422
Department of the Navy—						
Naval Forces—Pay, allowances, maintenance and general expenses	2,592	13,518	12,181	12,813	12,268	19,337
Miscellaneous war expenditure ..	..	330	90	46	47	1,149
Transport services	..	2,141	1,362	561	776	(a)
Naval construction and additions to the fleet	1,643	1,020	3,404	2,676	1,384	2,244
Auxiliary vessels for naval defence purposes	..	1,906	608	965	841	(a)
Graving Dock—Towards cost of construction	..	350	302	104	78	95
Aircraft and aero engines ..	..	..	..	2,398	1,855	983
Buildings, works, etc.	433	2,760	302	768	1,043	1,564
Maintenance and rent	28	124	125	182	252	390
Audit, pensions, interest and sinking fund..	135	142	158	182	195	210
Amount chargeable to War and Repatriation Services (*b*) ..	..	..	..	..	−1,729	−1,145
Total	4,831	22,291	18,532	20,695	17,010	24,827
Department of the Army—						
Australian Military Forces—Pay, allowances, maintenance and general expenses	2,941	34,779	20,397	12,563	12,273	15,869
Special units serving abroad—Maintenance	..	5,345	2,439	845	702	1,108
Prisoners of war, war criminals, internees	..	257	62	30	42	19
Arms, armament, ammunition ..	1,129	24,421	4,978	983	1,894	5,387
Buildings, works, etc (*c*) ..	418	654	193	249	758	4,349
Maintenance and rent	65	2	2	227	349	561
Audit, pensions, interest and sinking fund	269	326	386	418	512	534
Amount chargeable to War and Repatriation Services (*b*) ..	..	..	..	..	−942	−1,072
Total	4,822	65,784	28,457	15,315	15,588	26,755

See **next page for notes.**

DEFENCE SERVICES: COMMONWEALTH EXPENDITURE FROM REVENUE, TRUST AND LOAN FUNDS—*continued.*

(£'000.)

Items.	1938–39.	1946–47.	1947–48.	1948–49.	1949–50.	1950–51.
Department of Air—						
Royal Australian Air Force—Pay, allowances, maintenance and general expenses	1,304	11,954	9,781	8,006	7,904	10,833
R.A.A.F. squadrons overseas ..	..	..	1,722	1,397	529	1,209
Aircraft, equipment and stores ..	1,049	10,406	6,435	6,652	2,912	13,210
Buildings, works, etc.	489	188	184	323	692	1,592
Maintenance and rent	12	259	284	387	607	807
Audit, pensions, interest and sinking fund	69	133	135	141	174	223
Amount chargeable to War and Repatriation Services (*b*) ..	..	..	..	..	−855	..
Total	2,923	22,940	18,541	16,906	11,963	27,874
Department of Supply—						
Administrative and general expenses	36	2,630	1,422	1,293	1,180	1,701
Supply Research Laboratories—Salaries and general expenses ..	..	283	355	431	610	806
Munitions factories, government undertakings and establishments—Salaries and general expenses ..	477	1,787	1,008	885	1,705	1,764
Transport and storage services ..	..	..	609	383	420	257
Shipping Branch	..	3,774	(*d*)	(*d*)	(*d*)	(*d*)
Miscellaneous expenditure ..	44	926	128	43	30	4
Defence research and development	..	..	1,413	4,550	5,575	6,264
Strategic stores and equipment reserve	..	..	..	..	..	57,048
Machinery, plant, equipment, etc., for the manufacture of munitions and aircraft	655	883	994	482	578	897
Munitions Factories, etc.—Working capital	..	92	300	..	..	..
Electricity supply in Australia—Development	..	3	75	(*d*)	(*d*)	(*d*)
Shipbuilding—Plant, etc. ..	..	15	7	(*d*)	(*d*)	(*d*)
Standard Ships—Construction ..	..	1,904	1,248	(*d*)	(*d*)	(*d*)
Buildings, works, etc.	463	405	422	317	324	264
Maintenance and rent	..	374	286	243	311	392
Audit, pensions, interest and sinking fund	83	126	135	135	139	120
Amount chargeable to War and Repatriation Services (*b*) ..	..	..	..	..	−462	−237
Total	1,758	13,202	8,402	8,762	10,410	69,280
Total Defence Services—						
Consolidated Revenue Fund ..	9,410	124,354	74,169	61,928	55,274	149,170
Trust Fund	(*e*) 3,072	(*f*) 8	(*f*) 2	..	..	..
Loan Fund	1,913	..	..	..	..	−12
GRAND TOTAL	14,395	124,362	74,171	61,928	55,274	149,158

(*a*) Included with Miscellaneous War Expenditure. (*b*) Represents expenditure on War and Repatriation Services (*see* page 798) included in departmental expenditure above, but for which dissection is not available. (*c*) Includes National Defence Contributions Trust Account. (*d*) Provided under Ordinary Services. (*e*) Expenditure from excess receipts of previous years appropriated for Defence Equipment Trust Account. (*f*) Expenditure from National Defence Contributions Trust Account.

§ 7. War and Repatriation Services and Post-war Charges.

Expenditure from Consolidated Revenue and Loan Funds for War and Repatriation Services and Post-war Charges in relation to both the 1914–18 and 1939–45 Wars is shown in the following table for the years 1938–39 and 1946–47 to 1950–51 :—

WAR AND REPATRIATION SERVICES AND POST-WAR CHARGES : EXPENDITURE FROM CONSOLIDATED REVENUE AND LOAN FUNDS.

(£'000.)

Items.	1938–39.	1946–47.	1947–48.	1948–49.	194–50	1950–51.
Public Debt Charges—						
Interest (including exchange on interest payments)	7,616	43,296	44,723	44,677	45,126	44,614
Sinking Fund	2,049	11,813	12,542	13,084	13,197	13,835
Other	225	151	211	190	379	312
Total Public Debt Charges (*a*) ..	9,890	55,260	57,476	57,951	58,702	58,761
War Gratuities	..	2,882	3,360	31,884	9,994	30,797
War and Service Pensions	8,227	16,065	17,167	20,268	22,023	27,532
Commonwealth Reconstruction Training Scheme—						
University	..	2,874	3,890	3,231	2,390	1,595
Technical	..	6,545	8,888	6,965	4,444	2,401
Rural	..	241	340	303	252	145
Correspondence	..	14	7	1	..	..
War Service Land Settlement ..	..	2,002	2,242	2,922	4,074	4,388
Re-establishment loans for agricultural purposes	..	2,610	2,503	1,572	1,065	316
Repatriation Department—						
Repatriation Benefits—						
Maintenance of departmental institutions	319	988	2,670	2,938	3,208	4,133
Medical treatment	231	1,842	1,546	1,780	2,025	2,512
Small business loans	..	1,889	1,535	1,073	777	583
Expenses in providing employment	..	1,340	591	303	53	32
Vocational training	..	1,329	1,238	714	265	67
Other	81	414	296	333	334	507
Soldiers' Children Education Scheme	117	131	153	160	193	184
Other benefits and allowances ..	2	69	105	85	70	79
Administration and general expenses	315	1,437	1,911	2,075	2,473	3,061
Expenditure recovered (*b*) ..	−71	−732	−1,439	−1,995	−1,951	−1,777
Total Repatriation Department	994	8,707	8,606	7,466	7,447	9,381
War Service Homes—Salaries and general expenses	98	129	176	200	266	492
Defence Departments—Proportion of expenditure (*c*)	..	..	..	..	3,988	2,455
Other Departments—Miscellaneous expenditure	48	3,927	3,074	1,784	1,156	438
International Payments—						
United Kingdom Grant	..	25,000	..	10,000	10,000	..
International Relief and Rehabilitation	..	18,117	2,240	2,770	1,650	(*d*)
International Monetary Agreements	..	..	10,193	..	2,778	14
Reciprocal Lend-Lease to the United States Forces	..	5,006	521	..	12	..
Lend-Lease Settlement	..	8,398	1,095	108	..	..
Other	..	117	98	149	132	81
Other Administrations—Recoverable expenditure (*e*)	..	5,496	−11,248	−2,528	−1,942	−1,849
Miscellaneous Credits	..	−25,520	−12,714	−5,451	−2,371	−1,769
Credits from the Disposals Commission	..	−37,986	−15,649	−6,454	−3,982	−1,681
Capital Works and Services—						
Repatriation Department ..	36	242	309	268	297	342
War Service Homes Act 1918–1949	105	2,113	5,908	8,396	14,551	24,911
Other	..	11	3	..	..	..
Total Capital Works and Services	141	2,366	6,220	8,664	14,848	25,253
Total, War and Repatriation Services and Post-war Charges—						
Consolidated Revenue Fund ..	19,398	94,716	134,324	164,874	132,071	129,977
Loan Fund	..	37,894	..	..	25,483	28,773
	19,398	132,610	134,324	164,874	157,554	158,750
Less Subsidies (*f*)	..	30,360	45,839	23,069	20,628	..
GRAND TOTAL	19,398	102,250	88,485	141,805	136,926	158,750

(*a*) Excludes Interest and Sinking Fund payments on War (1914–18) Debt due to the United Kingdom Government, payment of which was suspended in 1931. (*b*) From Service Departments and Australian Soldiers' Repatriation Trust Account. (*c*) Represents expenditure on War and Repatriation Services by Defence Departments (*see* page 797), but for which dissection is not available. (*d*) Provided under Ordinary Services. (*e*) Munitions, stores, etc., supplied to the Government of United Kingdom and other administrations. Includes waivure of war-time indebtedness of other administrations. (*f*) These subsidies, which from 1941–42 to 1949–50 were provided under War and Repatriation Services, are excluded from this table. In 1950–51 they were provided under Ordinary Services. For details *see* page 787.

B. STATE FINANCE.

§ 1. General.

1. **Functions of State Governments.**—In comparing the financial returns of the States, allowances must be made for the various functions discharged by the respective Governments, and for local conditions in each case. Direct comparisons of the revenue, expenditure and debt of the individual States are difficult, owing to the fact that functions which in one State are assumed by the Central Government are in another relegated to municipal or semi-governmental bodies which are vested with certain defined borrowing powers and whose financial transactions are not included with those of the Central Government. Care, therefore, is needed in making comparisons, and the particulars contained in this Chapter should be read with those contained in Chapter XV.—Local Government. In many respects, moreover, the budgets of the Australian Governments differ materially from those of most European countries, owing to the inclusion therein of the revenue and expenditure of departments concerned in rendering public services, such as railways, tramways, water supply, etc., which in other countries are often left to private enterprise.

2. **Accounts of State Governments.**—The various financial transactions of the States are in each case mainly concerned with one or other of three Funds—the " Consolidated Revenue Fund ", the " Trust Fund ", and the " Loan Fund ". All revenue (except certain items paid into special funds) collected by the State is paid into its Consolidated Revenue Fund, from which payments are made under the authority of an Annual Appropriation Act passed by the Legislature, or by a permanent appropriation under a Special Act.

Figures in § 2 following relating to New South Wales represent the transactions of the Consolidated Revenue Fund and the Business Undertakings included in the Annual Budget Papers. These latter are as follows :—Railways, Tramways and Omnibuses, and Sydney Harbour Trust Section of the Maritime Services Board. Adjustments have been made to the Budget figures, however, in order to obviate duplications caused by inter-fund payments and to maintain uniformity from year to year in the presentation of statistics. Particulars for all other States relate to the transactions of the Consolidated Revenue Fund.

The Trust Fund comprises all moneys held in trust by the Government, and includes such items as sinking funds, insurance companies' deposits, etc.

The Loan Fund is debited with all loan moneys raised by the State, and credited with the expenditure therefrom on public works or other purposes.

3. **Inter-relation of Commonwealth and State Finances.**—A statement in some detail, covering the inter-relation of Commonwealth and State Finances during the period from the inception of Federation to the passing of the Financial Agreement Act 1928, was published in Official Year Book, No. 22, pages 379–80. Changes in the financial relations between the Commonwealth and States since the passing of the Financial Agreement Act have been described in issues of the Official Year Book from year to year (*see also* pages 788–792 and 820).

§ 2. State Consolidated Revenue Funds.

Division I.—Revenue.

1. **General.**—The principal sources of State revenue are :—

> (*a*) Taxation ; (*b*) the Business Undertakings controlled by the State Governments ; (*c*) Sale of and Rental from Crown lands ; (*d*) Payments by Commonwealth Government under the Financial Agreement, Special Grants and Tax Reimbursement Acts, etc. ; (*e*) Interest on advances ; and (*f*) Miscellaneous sources, comprising Fines, Fees, etc.

Of these sources, that yielding the largest revenue for the States as a whole is the group of Business Undertakings, the principal contributors being the Government Railways and Tramways. Next in magnitude are Commonwealth payments under the Tax Reimbursement Acts, followed in order by Taxation, the Commonwealth payments under the Financial Agreement and Special Grants, and Lands receipts. Since the introduction in 1942–43 of the Uniform Tax Scheme, Commonwealth payments under the Income and Entertainments Tax Reimbursement Acts and, from 1946–47, under the Tax Reimbursement Act, have replaced revenue previously received from Income and Entertainments taxes.

2. **Revenue Received.**—The following table shows particulars of the total amounts and the amounts per head of consolidated revenue received by the several States during the years 1938–39 and 1946–47 to 1950–51.

STATE CONSOLIDATED REVENUE.

Year.	N.S.W.(*a*)	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Total.
TOTAL REVENUE. (£'000.)							
1938–39 ..	51,099	26,985	19,330	12,304	10,950	3,615	124,283
1946–47 ..	72,781	37,359	25,033	17,193	14,981	4,507	171,854
1947–48 ..	86,082	41,728	26,820	18,843	17,711	4,816	196,000
1948–49 ..	96,082	46,842	32,979	21,845	20,561	5,740	224,049
1949–50 ..	106,504	55,557	37,119	26,360	26,018	7,077	258,635
1950–51 ..	128,298	63,546	44,723	31,072	28,974	7,819	304,432
PER HEAD OF POPULATION. £ *s.* *d.*							
1938–39 ..	18 13 7	14 8 3	19 3 6	20 13 6	23 9 0	15 4 2	17 19 5
1946–47 ..	24 11 3	18 6 5	22 16 3	26 17 0	30 2 10	17 14 1	22 18 9
1947–48 ..	28 12 8	20 3 4	24 2 1	28 17 9	34 16 1	18 7 11	25 15 0
1948–49 ..	31 7 2	22 3 4	29 1 4	32 16 10	39 7 6	21 8 0	28 16 11
1949–50 ..	33 11 6	25 12 0	31 18 3	38 7 7	47 13 5	25 10 3	32 5 4
1950–51 ..	39 3 9	28 8 2	37 9 10	43 14 0	50 14 3	27 3 9	36 15 11

(*a*) *See* § 1 par. 2, page 799.

3. **Sources of Revenue.**—(i) *General.* Classifying the revenue of the several States in the manner indicated in par. 1 above, particulars for the year 1950–51 are as follows :—

STATE CONSOLIDATED REVENUE : SOURCES, 1950–51.

Source of Revenue.	N.S.W.(*a*)	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Total.
TOTAL REVENUE. (£'000.)							
Taxation (*b*) ..	14,547	9,315	5,377	4,053	2,013	2,107	37,412
Business Undertakings ..	61,675	22,646	18,876	10,120	9,782	4	123,103
Lands	3,545	1,167	2,087	308	615	195	7,917
Interest (n.e.i.) ..	630	1,860	920	1,290	889	874	6,463
Commonwealth Payments—							
Tax Reimbursements ..	30,363	17,446	12,273	6,468	6,169	2,388	75,107
Other(*c*) ..	9,426	7,064	3,200	6,909	7,372	1,471	35,442
Miscellaneous ..	8,112	4,048	1,990	1,924	2,134	780	18,988
Total ..	128,298	63,546	44,723	31,072	28,974	7,819	304,432
PER HEAD OF POPULATION. (£ *s.* *d.*)							
Taxation (*b*) ..	4 8 10	4 3 3	4 10 2	5 14 0	3 10 6	7 6 7	4 10 5
Business Undertakings ..	18 16 9	10 2 6	15 16 5	14 4 8	17 2 5	0 0 4	14 17 7
Lands	1 1 8	0 10 5	1 15 0	0 8 8	1 1 6	0 13 6	0 19 2
Interest (n.e.i.) ..	0 3 10	0 16 7	0 15 5	1 16 3	1 11 2	3 0 10	0 15 7
Commonwealth Payments—							
Tax Reimbursements ..	9 5 6	7 16 0	10 5 9	9 2 0	10 16 0	8 6 0	9 1 7
Other (*c*) ..	2 17 7	3 3 2	2 13 8	9 14 4	12 18 0	5 2 4	4 5 8
Miscellaneous ..	2 9 7	1 16 3	1 13 5	2 14 1	3 14 8	2 14 2	2 5 11
Total ..	39 3 9	28 8 2	37 9 10	43 14 0	50 14 3	27 3 9	36 15 11

(*a*) *See* § 1 par. 2, page 779. (*b*) In all States certain taxation collections are not paid into Consolidated Revenue Fund. For total collections *see* next page. (*c*) Includes payments under Financial Agreement, Special Grants and Prices Control Reimbursement Grants.

In comparing the revenue of the States, it should be borne in mind that business undertakings which in one State may be controlled by the Government are, in another State, controlled by a board or trust. For example, in New South Wales and Western Australia the tramway systems are controlled by the Government, while in the other States ownership is largely vested in trusts. Harbour and river services and water supply and sewerage are also controlled in some cases by the State and in others by trusts. All the Tasmanian transport facilities are controlled by a commission.

(ii) *Revenue from Taxation.* (*a*) *General.* The following table shows, for the year 1950–51, particulars of all State taxation collections irrespective of whether such moneys have been paid into the Consolidated Revenue Funds or not. For this reason the particulars hereunder differ from those shown in the tables relating to the Consolidated Revenue Funds and represent a comprehensive statement of all taxation collections by the Government in each State. In this and the succeeding statements of taxation the collections have been grouped according to the nature of the tax rather than the method of collection. For example, stamp duties on betting tickets and bookmakers' licences have been included under " Entertainments Tax " instead of under " Stamp Duties "

and "Licences" respectively. Commonwealth payments under the State Grants (Tax Reimbursement) Act are included because these grants have replaced revenue received by the States from Income and Entertainments taxes prior to the introduction of the Uniform Tax Scheme in 1942–43 :—

STATE REVENUE FROM TAXATION(a) : TOTAL NET COLLECTIONS AND COMMONWEALTH TAX REIMBURSEMENTS, 1950–51.

(£.)

Tax.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Total.
Probate and Succession Duties	6,408,560	3,442,487	1,427,937	996,719	460,112	268,288	13,004,103
Other Stamp Duties ..	4,988,445	2,987,246	2,052,415	778,839	889,223	265,432	11,961,600
Land	2,476	415,180	373,879	282,222	179,700	108,080	1,361,537
Income (Arrears).. ..	202,510	52,523	7,377	701	7,481	20,863	291,455
Liquor	1,367,012	780,166	269,056	43,148	171,374	95,395	2,726,151
Lotteries	..	..	210,750	..	..	b 1,215,037	1,425,787
Entertainments (c) ..	1,498,148	1,608,598	246,020	702,357	244,411	130,159	4,429,693
Motor	6,302,379	3,808,886	2,591,674	1,458,854	955,795	451,486	15,569,074
Licences (n.e.i.)	79,436	131,640	539,441	43,244	22,430	3,994	907,106
Other	..	..		40,383	46,538	..	
Total	20,848,966	13,226,726	7,718,549	4,346,467	2,977,064	2,558,734	51,676,506
Commonwealth Tax Reimbursement (d) ..	30,363,369	17,445,851	12,272,511	6,468,266	6,168,945	2,387,722	75,106,664
GRAND TOTAL ..	51,212,335	30,672,577	19,991,060	10,814,733	9,146,009	4,946,456	126,783,170

(a) In this table the particulars represent the total net collections from all sources of taxation irrespective of whether such moneys are paid to Consolidated Revenue Funds. (b) Includes Income Tax on Lottery Prizes, £799,315. (c) Mainly Racing. (d) Excludes £15,000,000 Special Financial Assistance, which was distributed as follows :—New South Wales, £6,250,000 ; Victoria, £4,750,000 ; Queensland, £2,000,000 ; South Australia, £800,000 ; Western Australia, £1,000,000 ; and Tasmania, £200,000.

The table hereunder shows, for the year 1950–51, the proportion of collections under individual taxes to the total taxation revenue :—

STATE REVENUE FROM TAXATION : PROPORTIONS OF INDIVIDUAL TAXES, ETC., TO TOTAL, 1950–51.

(Per Cent.)

Tax.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Total.
Probate and Succession Duties	12.51	11.22	7.14	9.22	5.03	5.43	10.26
Other Stamp Duties ..	9.74	9.74	10.27	7.20	9.72	5.37	9.44
Land	0.01	1.35	1.87	2.61	1.97	2.18	1.07
Income (Arrears)	0.39	0.17	0.04	0.01	0.08	0.42	0.23
Liquor	2.67	2.54	1.34	0.39	1.87	1.93	2.15
Lotteries	..	..	1.05	..	..	24.56	1.12
Entertainments	2.92	5.24	1.23	6.49	2.67	2.63	3.49
Motor	12.31	12.42	12.96	13.49	10.45	9.13	12.28
Licences (n.e.i)	0.16	0.43	2.70	0.40	0.25	0.08	0.71
Other	..	..		0.37	0.51	..	
Total	40.71	43.11	38.60	40.18	32.55	51.73	40.75
Commonwealth Tax Reimbursement	59.29	56.89	61.40	59.82	67.45	48.27	59.25
GRAND TOTAL ..	100.00	100.00	100.00	100.00	100.00	100.00	100.00

Prior to Federation, duties of Customs and Excise constituted the principal source of revenue from taxation. Thereafter, until the introduction of the Uniform Income Tax Scheme, the most productive State taxes were the various Income Taxes, which, in 1941–42, included Unemployment Relief, State Development and Hospital Taxes.

The total amounts and the amounts per head raised from all sources of taxation by the several State Governments, including amounts not paid into the Consolidated Revenue Fund and tax reimbursements received from the Commonwealth, during the years 1938–39 and 1946–47 to 1950–51, are shown in the following table :—

STATE REVENUE FROM TAXATION AND COMMONWEALTH TAX REIMBURSEMENTS.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Total.
TOTAL NET COLLECTIONS. (£'000.)							
1938–39 ..	20,263	12,023	8,646	4,199	3,597	1,779	50,507
1946–47(*a*)	27,107	16,713	10,667	5,729	4,925	2,776	67,917
1947–48(*a*)	31,305	18,246	12,051	6,321	5,726	3,102	76,751
1948–49(*a*)	36,290	21,490	14,220	7,661	6,581	3,670	89,912
1949–50(*a*)	41,915	25,051	16,356	8,842	7,669	4,216	104,049
1950–51(*a*)	51,212	30,672	19,991	10,815	9,146	4,947	126,783
PER HEAD OF POPULATION. (£ *s.* *d.*)							
1938–39 ..	7 8 2	6 8 5	8 11 6	7 1 1	7 14 1	7 9 8	7 6 1
1946–47(*a*)	9 3 0	8 3 11	9 14 5	8 18 11	9 18 2	10 18 1	9 1 4
1947–48(*a*)	10 8 3	8 16 4	10 16 8	9 13 10	11 5 1	11 17 0	10 1 8
1948–49(*a*)	11 16 11	10 3 5	12 10 8	11 10 4	12 12 1	13 13 7	11 11 6
1949–50(*a*)	13 4 4	11 10 10	14 1 3	12 17 6	14 1 0	15 4 0	12 19 7
1950–51(*a*)	15 12 10	13 14 3	16 15 2	15 4 3	16 0 2	17 4 0	15 6 6

(*a*) Includes Commonwealth Tax Reimbursement.

(*b*) *Probate and Succession Duties.* Probate duties have been levied for many years in all the States, but the provisions of the Acts governing the payment of duty differ widely both in regard to the ordinary rates and those which apply to special beneficiaries. A table showing the values of the estates in which probates and letters of administration were granted is given in Chapter XVI.—Private Finance.

The duties collected for the years 1938–39 and 1946–47 to 1950–51 are as follows :—

STATE PROBATE AND SUCCESSION DUTIES : NET COLLECTIONS.

(£.)

State.	1938–39.	1946–47.	1947–48.	1948–49.	1949–50.	1950–51.
New South Wales ..	2,364,124	3,689,983	4,610,742	4,871,876	5,140,657	6,408,560
Victoria	1,374,355	2,460,655	2,095,866	2,573,166	2,611,019	3,442,487
Queensland.. ..	677,037	943,332	1,072,386	1,262,401	1,372,437	1,427,937
South Australia ..	366,526	553,420	583,543	772,360	824,936	996,719
Western Australia ..	123,798	261,339	307,511	359,386	405,005	460,112
Tasmania	94,669	158,891	165,702	251,631	246,099	268,288
Total ..	5,000,509	8,067,620	8,835,750	10,090,820	10,600,153	13,004,103

(c) *Other Stamp Duties.* The revenue derived from stamp duties (excluding probate and succession duties and stamp duties on betting tickets) for the years 1938–39 and 1946–47 to 1950–51 is shown in the accompanying table :—

OTHER STATE STAMP DUTIES : NET COLLECTIONS.

(£.)

State.	1938–39.	1946–47.	1947–48.	1948–49.	1949–50.	1950–51.
New South Wales ..	1,286,124	2,135,637	2,462,483	2,809,202	3,979,100	4,988,445
Victoria	959,727	1,335,406	1,482,628	1,655,893	2,376,726	2,987,246
Queensland.. ..	610,110	948,271	1,087,688	1,268,352	1,556,864	2,052,415
South Australia ..	249,729	350,234	390,662	436,422	636,792	778,839
Western Australia ..	274,995	387,998	432,797	500,745	672,690	889,223
Tasmania	84,832	121,002	137,300	158,135	208,558	265,432
Total ..	3,465,517	5,278,548	5,993,558	6,828,749	9,430,730	11,961,600

(d) *Land Tax.* All the States impose a land tax, but in New South Wales the State land tax is levied on the unincorporated portion of the Western Division of the State only.

The following table shows the amounts collected by means of such taxes during the years 1938–39 and 1946–47 to 1950–51 :—

STATE LAND TAX : NET COLLECTIONS.

(£.)

State.	1938–39.	1946–47.	1947–48.	1948–49.	1949–50.	1950–51.
New South Wales ..	2,154	2,180	1,966	2,243	2,360	2,476
Victoria	482,336	382,599	373,766	370,547	292,580	415,180
Queensland.. ..	401,682	375,303	372,383	374,450	368,335	373,879
South Australia ..	321,482	286,481	284,503	284,694	282,634	282,222
Western Australia ..	114,623	111,920	110,657	131,783	158,396	179,700
Tasmania	85,069	91,759	92,342	93,802	96,965	108,080
Total ..	1,407,346	1,250,242	1,235,617	1,257,519	1,201,270	1,361,537

(e) *Income Taxes.* State taxes levied on incomes prior to the introduction of the Uniform Tax Scheme in 1942–43 were as follows :—

New South Wales—Income Tax, Super Tax and Further Tax on Undistributed Income of Companies ;

Victoria—Income Tax, Special Income Tax, and Unemployment Relief Tax ;

Queensland—Income Tax, Super Tax, Additional Tax and Income (State Development) Tax ;

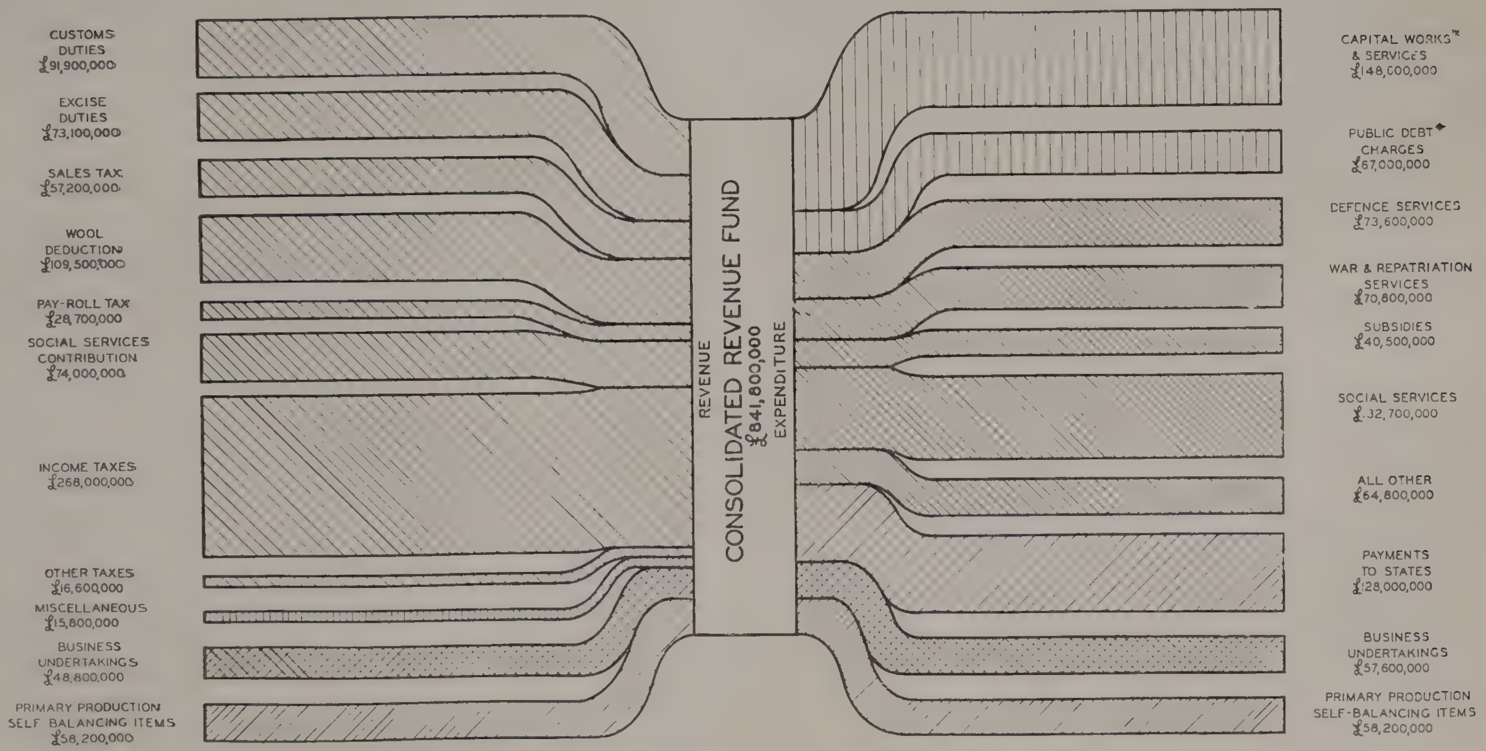
South Australia—Income Tax ;

Western Australia—Income Tax, Hospital Tax and Gold Mining Profits Tax ;

Tasmania—Income Tax.

Some details of these taxes are given in earlier issues of the Year Book.

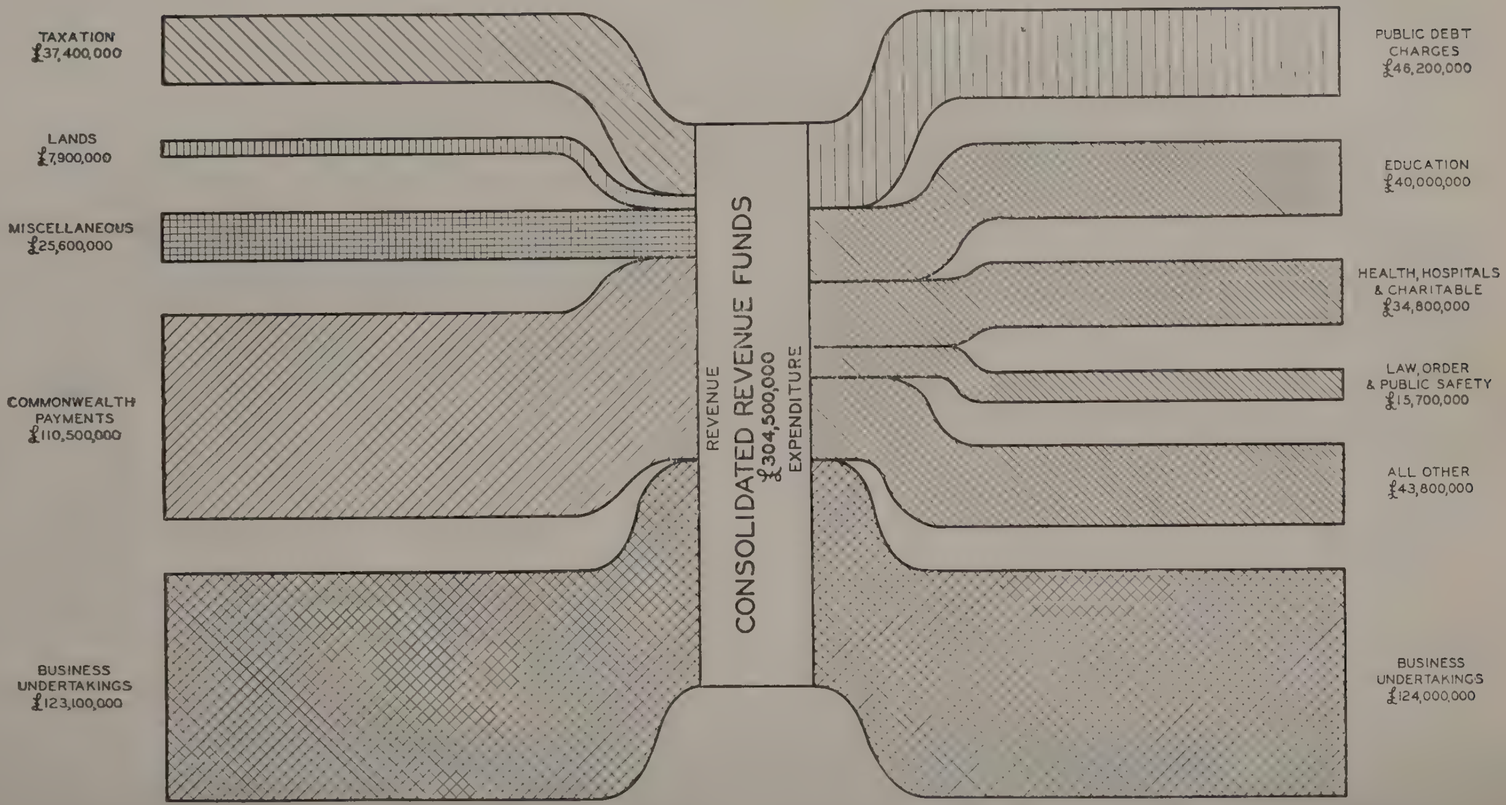
COMMONWEALTH CONSOLIDATED REVENUE FUND, YEAR ENDED 30TH JUNE, 1951



* INCLUDES DEFENCE WORKS AND SERVICES £73,500,000

◆ INCLUDES WAR DEBT CHARGES £58,800,000

STATE CONSOLIDATED REVENUE FUNDS, YEAR ENDED 30TH JUNE, 1951



When the Uniform Tax Scheme was introduced in 1942–43 these taxes, together with the Commonwealth War Tax, were discontinued, and the Commonwealth Income Tax rates were increased to raise the revenue previously raised by these taxes. The States are reimbursed by the Commonwealth for the revenue lost to them by the discontinuance of these taxes. Details of these reimbursement grants are given on pages 791 and 792.

In the following table total State collections of the taxes mentioned above are shown for the year 1938–39. For the years 1946–47 to 1950–51 the total of Commonwealth reimbursements and arrears of State taxes collected are shown.

STATE INCOME AND DIVIDEND TAXES: NET COLLECTIONS AND COMMONWEALTH TAX REIMBURSEMENTS.

(£.)

State.	1938–39.	1946–47. (a)	1947–48. (a)	1948–49. (a)	1949–50. (a)	1950–51. (a) (b)
New South Wales ..	12,703,150	16,472,691	18,540,934	22,021,712	25,489,859	30,565,879
Victoria	6,250,508	8,860,000	9,967,499	12,098,479	14,303,484	17,498,374
Queensland.. ..	5,608,603	6,601,000	7,426,125	8,832,622	10,230,827	12,279,888
South Australia ..	2,102,928	3,458,000	3,890,250	4,630,081	5,370,255	6,468,967
Western Australia ..	2,338,616	3,384,000	3,807,000	4,494,632	5,172,433	6,176,426
Tasmania	787,396	1,218,778	1,372,533	1,667,021	1,970,511	2,408,585
Total ..	29,791,201	39,994,469	45,004,341	53,744,547	62,537,369	75,398,119

(a) Includes revenue received under States Grants (Tax Reimbursement) Act 1946–1948. (b) Includes £5,000,000 received under the States Grants (Additional Tax Reimbursement) Act 1950, but excludes £15,000,000 received under the States Grants (Special Financial Assistance) Act 1951.

(f) *Motor Taxation.* Motor taxation comprises tax and registration fees on motor vehicles, and licences of motor dealers, motor drivers and motor cycle riders, and public vehicles except when controlled by local government authorities. The following table shows the collections for the years 1938–39 and 1946–47 to 1950–51 :—

STATE MOTOR TAXATION: NET COLLECTIONS.

(£.)

State.	1938–39.	1946–47.	1947–48.	1948–49.	1949–50.	1950–51.
New South Wales ..	2,762,678	2,937,588	3,469,003	3,957,563	4,647,644	6,302,379
Victoria	1,913,689	2,093,747	2,388,718	2,647,318	3,178,859	3,808,886
Queensland.. ..	939,757	1,068,979	1,242,086	1,498,003	1,714,256	2,591,674
South Australia ..	715,944	737,371	795,283	1,107,860	1,266,800	1,458,854
Western Australia ..	453,053	429,009	691,242	689,960	827,676	955,795
Tasmania	175,591	280,690	312,704	355,024	402,536	451,486
Total ..	6,960,712	7,547,384	8,899,036	10,255,728	12,037,771	15,569,074

Except in the case of South Australia, the proceeds of motor tax and motor registration fees are paid into special funds and the amounts do not appear in the Consolidated Revenue Funds. The total for Australia for the year 1950–51, £15,569,074, comprises registration fees and taxes, £12,216,825, drivers' and riders' licences, £1,090,045, and licences to operate, etc., £2,262,204.

(iii) *Business Undertakings.* (a) 1950–51. A very large proportion of State gross revenues is made up of receipts from business undertakings under the control of the Governments. The principal of these are railways and tramways, harbour works, water supply and sewerage and electricity supply, and, in addition, State batteries for the treatment of auriferous ores are included for Western Australia, and various minor revenue-producing services are rendered by the Governments of all States. For the year 1950–51 the revenue from these sources was £123,102,359 or 40.4 per cent. of the revenue from all sources. Details of revenue are as follows :—

STATE REVENUE FROM BUSINESS UNDERTAKINGS, 1950–51.

(£.)

Source.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.(a).	Total
Railways(b)	49,447,738	c18,797,703	18,875,882	7,160,460	6,970,696	..	101,252,479
Tramways and Omnibuses	10,271,940	(d) 199,194	..	..	671,716	..	11,142,850
Harbours, Rivers, Lights	1,955,074	(e) 406,337	..	1,136,472	441,059	..	3,938,942
Water Supply, Sewerage, Irrigation and Drainage ..	..	1,763,279	..	1,661,538	1,319,755	..	4,744,572
Electricity Supply ..	..	812,721	..	..	..	4,000	816,721
Other	..	666,095	252	161,614	378,834	..	1,206,795
Total ..	61,674,752	22,645,329	18,876,134	10,120,084	9,782,060	4,000	123,102,359

(a) Tasmanian transport services are under the separate control of the Transport Commission. (b) The following contributions to Railways Revenue from Consolidated Revenue Fund are excluded—New South Wales, £800,000; Victoria, £1,789,670; South Australia, £2,600,000. (c) Includes electric tramways operated by the Railways Department. (d) Tramway contribution to Consolidated Revenue. (e) Includes Harbour Trust Fund contribution, £274,860.

(b) 1938–39 *and* 1946–47 *to* 1950–51. The total revenue from Business Undertakings and the revenue per head in each State is shown in the following table for the years 1938–39 and 1946–47 to 1950–51 :—

STATE REVENUE FROM BUSINESS UNDERTAKINGS.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Total.
			TOTAL REVENUE. (£'000.)				
1938–39 ..	24,676	11,649	7,642	4,957	5,633	(a) 511	55,068
1946–47 ..	37,838	16,473	10,550	6,901	5,953	3	77,718
1947–48 ..	46,207	19,131	10,956	7,434	6,701	9	90,438
1948–49 ..	49,974	20,457	14,909	8,389	7,728	6	101,463
1949–50 ..	50,879	23,834	15,460	9,133	8,822	4	108,132
1950–51 ..	61,675	22,646	18,876	10,120	9,782	4	123,103
			PER HEAD OF POPULATION. (£ s. d.)				
1938–39 ..	9 0 5	6 2 6	7 11 7	8 6 6	12 1 4	(a)2 3 0	7 19 3
1946–47 ..	12 15 6	8 1 7	9 12 3	10 15 6	11 19 7	0 0 3	10 6 1
1947–48 ..	15 7 5	8 15 3	9 17 0	11 8 0	13 3 4	0 0 8	11 17 8
1948–49 ..	16 6 3	9 13 7	13 2 9	12 12 3	14 16 0	0 0 6	13 1 3
1949–50 ..	16 0 10	10 19 8	13 5 10	13 6 0	16 3 4	0 0 4	13 9 10
1950–51 ..	18 16 9	10 2 [illegible]	15 16 5	14 4 8	17 2 5	0 0 4	14 17 7

(a) Includes Tasmanian transport services which were subsequently placed under the control of the Transport Commission.

In the table below particulars of total State revenue from Business Undertakings for the various types of undertakings are shown for the years 1938–39 and 1946–47 to 1950–51 :—

STATE REVENUE FROM BUSINESS UNDERTAKINGS.

(£'000.)

Source.	1938–39.	1946–47.	1947–48.	1948–49.	1949–50.	1950–51.
Railways, Tramways and Omnibuses ..	48,154	70,142	82,264	92,321	98,289	112,396
Harbour Services ..	2,357	2,623	2,912	3,257	3,627	3,939
Water Supply, Sewerage, Irrigation and Drainage ..	2,543	3,360	3,560	3,950	4,338	4,745
Other	2,014	1,593	1,702	1,935	1,878	2,203
Total ..	55,068	77,718	90,438	101,463	108,132	123,103

(iv) *Lands.* The revenue from the sale and rental of Crown lands has, with few exceptions, been treated from the earliest times as forming part of the Consolidated Revenue Funds, and has been applied to meet ordinary expenses. The following table shows the revenue from sales and rentals of Crown lands for the year 1950–51 :—

STATE LAND REVENUE, 1950–51.

(£.)

Source.	N.S.W.	Victoria.	Q'land.	S.Aust.	W.Aust.	Tas.	Total.
Sales ..	84,136	87,455	..	53,980	38,778	3,001	267,350
Conditional Purchases	418,617	..	..	4,867	160,772	8,916	593,172
Rentals ..	2,417,090	196,875	1,430,982	248,705	113,651	74,892	4,482,195
Forestry ..	589,368	821,365	551,738	..	286,376	104,425	2,353,272
Other ..	36,218	61,564	104,542	..	15,652	3,527	221,503
Total ..	3,545,429	1,167,259	2,087,262	307,552	615,229	194,761	7,917,492

The total land revenue for all States for the years 1938–39 and 1946–47 to 1950–51 respectively was :—£4,144,000, £5,190,000, £6,196,000, £6,476,000, £7,004,000, £7,917,000.

(v) *Commonwealth Payments.* Commonwealth Payments to the States represent a considerable proportion of the States' Revenue. In 1950–51 the total amount (excluding sundry minor items) paid to the Consolidated Revenue Funds of the States was £110,548,629 (36.3 per cent.). This was made up of the contribution towards interest on States' debts under the Financial Agreement, £7,584,912, special grants to the States of South Australia, Western Australia and Tasmania, £12,175,000, Prices Control Reimbursement, £682,053, Special Financial Assistance, £15,000,000, and Tax Reimbursement Grants, £75,106,664. The latter item has been included under the State taxation above as it is paid to the States as a reimbursement for vacating the field of income taxation.

In addition to these, the States receive a number of other payments which are paid to Trust Funds. The main items in this class are the contribution towards the sinking fund on States' debts (£2,241,106 in 1950–51) paid to the National Debt Sinking Fund and grants for Commonwealth Aid Roads (£13,542,537 in 1950–51) paid to State Trust Funds.

More detailed information concerning Commonwealth payments to the States is given under part A of this Chapter, (§ 2, Division IV., page 788).

(vi) *Interest and Miscellaneous.* In addition to the foregoing, there are in each State several miscellaneous sources of revenue, including such items as interest, fines, fees, etc. In 1950–51 interest, mainly from loans to local governing bodies, on public account balances and for Soldier Land Settlement supplied £6,462,072, whilst "Miscellaneous" revenue, which includes fines of the courts and fees for services, amounted to £18,988,807.

Division II.—Expenditure.

1. **General.**—The principal heads of State expenditure from Consolidated Revenue Funds are :—

> (*a*) Interest, sinking fund and exchange charges in connexion with public debt ; (*b*) Working expenses of railways, tramways and other business and industrial undertakings ; (*c*) Education ; (*d*) Health and charitable expenditure ; (*e*) Justice ; (*f*) Police ; (*g*) Penal establishments ; and (*h*) all other expenditure, under which heading is included Public Works, Lands and Surveys, Agriculture and Forestry, Legislative and General Administration, Pensions and Miscellaneous.

In earlier years the working expenses of Railways and Tramways were the most important item of State Governmental expenditure, but, for a period prior to 1941–42, Public Debt charges were the heaviest item. Since then, however, Railways and Tramways expenditure has again taken the major place. In the year 1950–51 the working expenses of the Railways and Tramways and Omnibuses were 37.9 per cent. of the total expenditure from the State Consolidated Revenue Funds ; next in importance were Public Debt Charges, 15.2 per cent. ; Education, 13.1 per cent. ; Charitable, Public Health and Hospitals, 11.4 per cent. ; and Law, Order and Public Safety, 5.1 per cent.

2. **Total Expenditure.**—The total expenditure from the Consolidated Revenue Funds of the several States and the expenditure per head of population during each of the years 1938–39 and 1946–47 to 1950–51 are shown in the following table :—

STATE EXPENDITURE : CONSOLIDATED REVENUE FUNDS.

Year.	N.S.W.(a)	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Total.
			TOTAL EXPENDITURE. (£'000.)				
1938–39 ..	53,558	27,773	19,316	12,701	11,170	3,641	128,159
1946–47 ..	74,631	37,354	25,017	17,253	15,029	4,573	173,857
1947–48 ..	86,204	42,282	26,914	19,156	18,062	5,102	197,720
1948–49 ..	95,918	48,225	32,929	22,130	21,378	5,845	226,425
1949–50 ..	107,681	55,816	37,090	26,550	25,994	7,344	260,475
1950–51 ..	128,265	63,889	44,625	30,842	28,814	8,066	304,501
			PER HEAD OF POPULATION. (£ s. d.)				
1938–39 ..	19 11 7	14 16 8	19 3 3	21 6 10	23 18 5	15 6 5	18 10 8
1946–47 ..	25 3 9	18 6 4	22 16 0	26 18 10	30 4 9	17 19 3	23 4 1
1947–48 ..	28 13 6	20 8 8	24 3 9	29 7 4	35 9 11	19 9 9	25 19 6
1948–49 ..	31 6 1	22 16 5	29 0 5	33 5 5	40 18 9	21 15 9	29 3 0
1949–50 ..	33 18 11	25 14 5	31 17 9	38 13 1	47 12 7	26 9 6	32 9 11
1950–51 ..	39 3 6	28 11 3	37 8 2	43 7 7	50 8 8	28 0 11	36 16 1

(a) *See* § 1, par. 2, page 799.

3. **Details of Expenditure.**—(i) 1950–51. The following table shows the total expenditure and expenditure per head for each of the principal items :—

STATE EXPENDITURE : DETAILS, 1950–51.

Particulars.	N.S.W.(a)	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Total.
			TOTAL EXPENDITURE. (£'000.)				
Public debt (interest, sinking fund, exchange, etc.) ..	16,551	9,903	7,038	5,877	4,927	1,935	46,231
Railways	46,669	19,844	18,871	9,479	8,850	15	103,728
Tramways and Omnibuses	10,881	..	..	..	772	..	11,653
Harbours and Rivers, etc.	1,109	154	..	707	185	..	2,155
Water Supply, Sewerage, Irrigation and Drainage ..	..	1,721	..	1,344	1,072	..	4,137
Other Business and Industrial Undertakings	..	668	1	167	833	(b) 650	2,319
Education	16,141	10,644	4,957	3,442	3,171	1,618	39,973
Health and charitable	13,728	8,473	5,528	2,829	2,756	1,503	34,817
Justice	1,417	964	466	205	219	105	3,376
Police	3,247	2,600	2,094	768	765	357	9,831
Penal establishments	980	329	125	124	111	62	1,731
Public safety ..	211	215	174	28	60	23	711
Reduction of previous deficits (c) ..	..	..	..	474	818	−96	1,196
All other expenditure	17,331	8,374	5,371	5,398	4,275	1,894	42,643
Total ..	128,265	63,889	44,625	30,842	28,814	8,066	304,501

(a) *See* § 1, par. 2, page 799. (b) Transport Commission loss. (c) Appropriated from the Commonwealth Grant.

STATE EXPENDITURE: DETAILS, 1950–51—*continued.*

PER HEAD OF POPULATION.

(£ *s. d.*)

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Total.
Public debt (interest, sinking fund, exchange, etc.) ..	5 1 1	4 8 7	5 18 0	8 5 4	8 12 6	6 14 7	5 11 9
Railways	14 5 1	8 17 5	15 16 5	13 6 8	15 9 10	0 1 1	12 10 9
Tramways and Omnibuses	3 6 6	..	..	..	1 7 0	..	1 8 2
Harbours and Rivers, etc.	0 6 9	0 1 5	..	0 19 11	0 6 6	..	0 5 2
Water Supply, Sewerage, Irrigation and Drainage ..	..	0 15 5	..	1 17 10	1 17 6	..	0 10 0
Other Business and Industrial Undertakings	..	0 5 11	..	0 4 8	1 9 2	2 5 2	0 5 7
Education.. ..	4 18 7	4 15 2	4 3 1	4 16 10	5 11 0	5 12 6	4 16 8
Health and Charitable	4 3 10	3 15 9	4 12 8	3 19 7	4 16 6	5 4 6	4 4 2
Justice	0 8 8	0 8 7	0 7 10	0 5 9	0 7 8	0 7 4	0 8 2
Police	0 19 10	1 3 3	1 15 1	1 1 7	1 6 9	1 4 10	1 3 9
Penal establishments	0 6 0	0 2 11	0 2 1	0 3 6	0 3 11	0 4 4	0 4 2
Public safety ..	0 1 4	0 1 11	0 2 11	0 0 9	0 2 1	0 1 7	0 1 9
Reduction of previous deficits	..	..	..	0 13 4	1 8 7	–0 6 8	0 2 11
All other expenditure	5 5 10	3 14 11	4 10 1	7 11 10	7 9 8	6 11 8	5 3 1
Total ..	39 3 6	28 11 3	37 8 2	43 7 7	50 8 8	28 0 11	36 16 1

(ii) 1938–39 *and* 1946–47 *to* 1950–51. Expenditure for the years 1938–39 and 1946–47 to 1950–51 is shown in the following table :—

STATE EXPENDITURE.

(£'000.)

Particulars.	1938–39.	1946–47.	1947–48.	1948–49.	1949–50.	1950–51.
Public debt (interest, sinking fund, exchange, etc.) ..	40,158	40,322	40,626	41,915	43,999	46,231
Railways, Tramways and Omnibuses (working expenses)	38,138	62,505	74,311	87,914	99,239	115,381
Harbours and Rivers, etc. ..	680	1,241	1,332	1,609	1,789	2,155
Water Supply, Sewerage, Irrigation and Drainage ..	1,076	2,135	2,456	2,814	3,363	4,137
Other Business and Industrial Undertakings	1,035	1,184	1,467	2,318	2,340	2,319
Education	12,639	20,671	23,964	27,778	32,786	39,973
Health and Charitable ..	15,307	14,437	18,683	22,262	27,739	34,817
Justice	1,323	1,828	2,075	2,536	2,851	3,376
Police	3,733	5,174	5,987	6,906	8,257	9,831
Penal establishments ..	646	965	1,145	1,281	1,490	1,731
Public safety	297	538	565	644	657	711
Reduction of previous deficits	–				1,012	1,196
All other expenditure ..	13,127	22,857	25,109	28,448	34,953	42,643
Total	128,159	173,857	197,720	226,425	260,475	304,501

Division III.—Surplus Revenue.

The following table shows for each of the years 1938–39 and 1946–47 to 1950–51 the total amount and amount per head of the surplus or deficit of each State :—

STATE SURPLUS REVENUE.

Year.	N.S.W.(a)	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Total.
			TOTAL AMOUNT. (£'000.)				
1938–39 ..	−2,459	− 787	14	−397	−221	− 26	−3,876
1946–47 ..	−1,850	5	16	− 60	− 48	− 66	−2,003
1947–48 ..	− 122	− 554	−94	−313	−351	−286	−1,720
1948–49 ..	164	−1,383	50	−285	−817	−105	−2,376
1949–50 ..	−1,177	− 259	29	−190	24	−267	−1,840
1950–51 ..	33	− 343	98	230	160	−247	− 69
			PER HEAD OF POPULATION. (£ s. d.)				
1938–39 ..	−0 18 0	−0 8 5	0 0 3	−0 13 4	−0 9 5	−0 2 3	−0 11 3
1946–47 ..	−0 12 6	0 0 1	0 0 3	−0 1 10	−0 1 11	−0 5 2	−0 5 4
1947–48 ..	−0 0 10	−0 5 4	−0 1 8	−0 9 7	−0 13 10	−1 1 10	−0 4 6
1948–49 ..	0 1 1	−0 13 1	0 0 11	−0 8 7	−1 11 3	−0 7 10	−0 6 1
1949–50 ..	−0 7 5	−0 2 5	0 0 6	−0 5 6	0 0 10	−0 19 3	−0 4 7
1950–51 ..	0 0 3	−0 3 1	0 1 8	0 6 5	0 5 7	−0 17 2	−0 0 2

(a) *See* § 1, para. 2, page 799.

NOTE.—Minus sign (−) indicates deficit.

§ 3. State Trust Funds.

In addition to the moneys received as revenue and paid to the credit of Consolidated Revenue Funds, considerable sums are held by the State Governments in trust for various purposes. The balances of trust funds held at 30th June of the years 1939 and 1947 to 1951 were as follows :—

STATE TRUST FUND BALANCES.
(£'000.)

At 30th June.	N.S.W.(a)	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Total.
1939 ..	15,684	8,189	3,062	1,448	3,744	530	32,657
1947 ..	23,753	18,880	30,525	2,352	8,081	923	84,514
1948 ..	35,297	17,303	29,751	2,855	8,639	709	94,554
1949 ..	29,559	16,448	29,924	2,689	9,380	609	88,609
1950 ..	32,922	16,468	30,382	3,162	10,929	390	94,253
1951 ..	43,169	18,725	33,907	6,184	12,090	360	114,435

(a) Special Deposits Account and Special Accounts.

§ 4. State Loan Funds.

1. **General.**—As far back as 1842 revenue collections were supplemented by borrowed moneys, the earliest loan being raised by New South Wales for the purpose of assisting immigration, at rates of interest varying from 2¾d. to 5¼d. per £100 per diem, or

approximately from 4½ per cent. to 8 per cent. per annum. Australian public borrowing, however, is mainly due to the fact that the State Governments, in addition to ordinary administrative duties, undertake functions which in other countries are usually entrusted to local authorities or left to private enterprise. Foremost amongst these are the construction and control of the railway systems. Loan moneys have also been largely used for improvements to harbours and rivers, and for the construction of roads, water supply and sewerage works. The State loan expenditure and public debt thus differ very materially from those of most European countries, and from those of the Commonwealth, where such expenditure was very largely incurred for defence or war purposes. As shown above, the State debts consist chiefly of moneys raised and expended with the object of assisting the development of the resources of the country, and are to a very large extent represented by tangible assets.

Statements relating to Loan Expenditure are shown below for both "gross" and "net" expenditure. The gross expenditure represents the amounts disbursed during each year whereas the net expenditure represents the gross expenditure less any credits to the Loan Fund during the year on account of repayments of advances to local governing bodies, settlers, etc., the sale of assets, and transfers from other funds. Such moneys are credited to the Loan Fund in the year of repayment irrespective of when the advance was made.

2. **Details of Loan Expenditure.**—(i) *Gross Loan Expenditure*, 1950–51. Particulars of the gross loan expenditure on Works, Services, etc., for the year 1950–51 are shown in the following table :—

STATE GROSS LOAN EXPENDITURE ON WORKS, SERVICES, ETC., 1950–51.

(£'000.)

Heads of Expenditure.	N.S.W.	Victoria. (*a*)	Q'land.	S. Aust.	W. Aust.	Tas.	Total.
Public Works and Services—							
Railways	15,910	7,044	6,790	2,521	2,304	1,532	36,101
Tramways and Omnibuses	1,185	..	..	300	325	..	1,810
Roads	216	816	811	100	..	506	4,771
Bridges		..					
Harbours and Rivers ..	1,031	60	4	532	695		
Lights and Lighthouses ..	..	..	..		..		
Water Supply	451	7,125	500	2,673	1,188	..	12,968
Sewerage		29	..	630	372	..	
Electricity Supply ..	5,099	1,250	..	5,000	3,296	5,325	19,970
Public Buildings ..	5,703	5,868	1,982	953	1,037	928	16,471
Loans and Grants to Local Bodies	338	138	3,464	..	..	..	3,940
Unemployment Relief Works	..	..	..	..	..	..	..
Housing(*b*)	1,232	904	270	5,722	..	4,824	12,952
Other Public Works, etc.	502	337	..	32	88	1,248	2,207
Primary Production—							
Soldier Settlement ..	4,596	6,096	1	4	..	219	10,916
Land for Settlement ..	..	..	569	71	18	8	666
Advances to Settlers ..	..	1	..	26	..	281	308
Water Conservation ..	3,401	..	757	51	333	..	5,045
Irrigation and Drainage..				327	176	..	
Rabbit-proof Fencing ..	..	56	3	(*c*)	..	..	59
Agriculture ..	214	..	148	..	13	..	375
Agricultural Bank ..	..	..	920	..	..	..	920
Forestry	715	1,590	1,273	769	202	329	4,878
Mines and Mineral Resources	349	140	206	640	465	..	1,800
Other..	226	160	..	..	2	..	388
Other Purposes	..	(*d*)3,695	..	250	890	..	4,835
Total Public Works, Services, etc., ...	41,168	35,309	17,698	20,601	11,404	15,200	141,380
Per Head of Population	£12 11 6	£15 15 9	£14 16 9	£28 19 6	£19 19 2	£52 17 1	£17 1 9

(*a*) Expenditure from Loan Funds and on account of Loans; includes expenditure from Loan Funds, from Treasurer's Advance Account, and from State Loans Repayment Fund. (*b*) Excludes expenditure from Commonwealth loans under Commonwealth–State Housing Agreements. (*c*) Included with Advances to Settlers. (*d*) Includes Gas and Fuel Corporation shares, £2,551,000.

(ii) *Net Loan Expenditure,* 1950–51. For the year ended 30th June, 1951, State net loan expenditure on Works, Services, etc., was as follows :—

STATE NET LOAN EXPENDITURE ON WORKS, SERVICES, ETC., 1950-51.

(£'000.)

Heads of Expenditure.	N.S.W.	Victoria. (a)	Q'land.	S.Aust. (b)	W.Aust.	Tas.	Total.
Public Works and Services—							
Railways	15,654	7,009	6,761	2,491	1,633	1,341	34,889
Tramways and Omnibuses	1,155	..	..	300	229	..	1,684
Roads	154	777	616	90	..	477	4,243
Bridges		−2					
Harbours and Rivers ..	1,019	25	2	503	582		
Lights and Lighthouses ..	..	..	..		..		
Water Supply	438	7,117	500	2,596	1,181	..	12,808
Sewerage		27	..	593	356	..	
Electricity Supply ..	5,020	1,250	..	5,000	3,296	5,245	19,811
Public Buildings ..	5,593	5,605	1,963	904	1,001	918	15,984
Loans and Grants to Local Bodies	337	136	2,810	−1	..	−15	3,267
Unemployment Relief Works	−43	−34	..	..	..	−1	−78
Housing (c)	726	717	145	5,111	..	4,413	11,112
Other Public Works, etc.	493	328	..	−34	88	889	1,764
Primary Production—							
Soldier Settlement ..	3,106	5,182	−22	−315	..	−122	7,829
Land for Settlement ..	..	−910	466	−206	17	−32	−665
Advances to Settlers ..	..	−12	−15	−33	..	126	66
Water Conservation ..	3,000		739	49	333	..	4,577
Irrigation and Drainage ..		..		281	175	..	
Rabbit-proof Fencing ..	..	20	−8	(d)	..	..	12
Agriculture	214	..	−157	..	10	..	67
Agricultural Bank ..	..	..	799	..	..	..	799
Forestry	711	1,114	1,273	171	202	318	3,789
Mines and Mineral Resources	347	129	192	640	438	..	1,746
Other	225	79	−33	−11	2	−26	236
Other Purposes	..	(e) 3,467	..	156	784	..	4,407
Total Public Works, Services, etc., Expenditure	38,149	32,024	16,031	18,285	10,327	13,531	128,347
Per Head of Population ..	£11 13 0	£14 6 4	£13 8 10	£25 14 4	£18 1 6	£47 1 0	£15 10 3

(a) Expenditure from Loan Funds and on account of Loans ; includes expenditure from Loan Funds, from Treasurer's Advance Account, and from State Loans Repayment Fund. (b) Credits arising from the cancellation of securities redeemed from Sinking Fund are not included. (c) Excludes expenditure from Commonwealth loans under Commonwealth-State Housing Agreements. (d) Included in Advances to Settlers. (e) Includes Gas and Fuel Corporation shares, £2,551,000.

3. Loan Expenditure on Works, Services, etc., 1938–39 and 1946–47 to 1950–51.—(i) *Gross Loan Expenditure.* Gross loan expenditure on works, etc. for the years 1938–39 and 1946–47 to 1950–51 is shown in the following table :—

STATE GROSS LOAN EXPENDITURE ON WORKS, SERVICES, ETC.

Year.	N.S.W.	Victoria. (a)	Q'land.	S. Aust.	W. Aust.	Tas.	Total.
			GROSS LOAN EXPENDITURE. (£'000.)				
1938–39 ..	8,789	3,218	3,393	2,529	1,783	1,687	21,399
1946–47 ..	9,102	7,111	4,532	5,305	2,231	2,056	30,337
1947–48 ..	16,241	11,013	5,822	5,607	3,031	3,463	45,177
1948–49 ..	22,960	12,727	7,118	7,149	3,819	4,393	58,166
1949–50 ..	27,219	20,325	9,035	12,122	8,351	5,783	82,835
1950–51 ..	41,168	35,309	17,698	20,601	11,404	15,200	141,380

(a) *See* footnote (a) to previous table.

STATE GROSS LOAN EXPENDITURE ON WORKS, SERVICES, ETC.—*continued.*

PER HEAD OF POPULATION.

(£ s. d.)

Year.	N.S.W.	Victoria. (a)	Q'land.	S. Aust.	W. Aust.	Tas.	Total.
1938–39 ..	3 4 3	1 14 5	3 7 4	4 5 0	3 16 4	7 2 0	3 1 11
1946–47 ..	3 1 5	3 9 9	4 2 7	8 5 8	4 9 9	8 1 6	4 1 0
1947–48 ..	5 8 0	5 6 5	5 4 8	8 11 11	5 19 2	13 4 7	5 18 9
1948–49 ..	7 9 10	6 0 5	6 5 6	10 15 0	7 6 3	16 7 7	7 9 9
1949–50 ..	8 11 7	9 7 4	7 15 4	17 13 0	15 6 0	20 17 0	10 6 8
1950–51 ..	12 11 6	15 15 9	14 16 9	28 19 6	19 19 2	52 17 1	17 1 9

(a) *See* footnote (a) to previous table.

(ii) *Net Loan Expenditure.* The following table shows the works net loan expenditure during each of the years 1938–39 and 1946–47 to 1950–51 :—

STATE NET LOAN EXPENDITURE ON WORKS, SERVICES, ETC.

NET LOAN EXPENDITURE.

(£'000.)

Year.	N.S.W.	Victoria. (a)	Q'land.	S. Aust. (a)	W. Aust.	Tas.	Total.
1938–39 ..	5,408	2,290	2,041	1,226	1,636	577	13,178
1946–47 ..	8,640	5,091	3,579	3,628	2,043	828	23,809
1947–48 ..	15,129	8,786	4,718	3,805	2,537	2,634	37,609
1948–49 ..	22,056	10,534	5,866	5,214	3,580	3,511	50,761
1949–50 ..	24,850	17,869	7,910	9,968	8,105	4,880	73,582
1950–51 ..	38,149	32,024	16,031	18,285	10,327	13,531	128,347

PER HEAD OF POPULATION.

(£ s. d.)

Year.	N.S.W.	Victoria. (a)	Q'land.	S. Aust. (a)	W. Aust.	Tas.	Total.
1938–39 ..	1 19 6	1 4 6	2 0 6	2 1 2	3 10 1	2 8 7	1 18 1
1946–47 ..	2 18 4	2 9 11	3 5 3	5 13 4	4 2 3	3 5 1	3 3 7
1947–48 ..	5 0 8	4 4 11	4 4 10	5 16 8	4 19 9	10 1 3	4 18 10
1948–49 ..	7 4 0	4 19 8	5 3 5	7 16 9	5 17 2	13 1 9	6 10 8
1949–50 ..	7 16 8	8 4 8	6 16 0	14 10 3	14 17 0	17 11 10	9 3 7
1950–51 ..	11 13 0	14 6 4	13 8 10	25 14 4	18 1 6	47 1 0	15 10 3

(a) *See* footnotes (a) and (b) to table in par. 2 (ii) above.

The four tables in this paragraph and paragraph 2 do not include particulars of expenditure on loan discounts and flotations, the funding of deficits, the retirement of treasury bills, and similar items of a nature other than works, services, etc. The aggregate net expenditure on those items to 30th June, 1951 is shown in paragraph 4 following. Summaries of the gross and net expenditure and repayments in respect of all loan purposes for the years 1948–49 to 1950–51 are shown in paragraph 5 following.

4. **Total Net Loan Expenditure to 30th June, 1951.**—The total net loan expenditure including revenue deficits, etc., of the States from the initiation of borrowing to 30th June, 1951 amounted to £1,415,830,000. The purposes for which this sum was expended are shown in the following table :—

STATE NET LOAN EXPENDITURE TO 30th JUNE, 1951.

(£'000.)

Heads of Expenditure.	N.S.W.	Victoria.(a)	Q'land.	S. Aust.	W. Aust.	Tas.	Total.
Public Works and Services—							
Railways	204,744	92,160	78,572	43,050	30,616	10,590	459,732
Tramways and Omnibuses ..	12,940	..	..	(b) 4,786	1,785	..	19,511
Roads and Bridges	21,076	14,331	8,801	3,922	3,183	8,456	110,423
Harbours, Rivers, Lighthouses ..	26,297	1,868	3,691	9,763	9,035		
Water Supply ..	42,115	49,432	2,063	26,063	13,754	..	144,499
Sewerage.. ..		276	..	5,577	5,219	..	
Electricity Supply..	8,820	19,089	..	10,500	9,643	20,271	68,323
Public Buildings ..	33,843	22,909	14,390	6,808	6,377	5,262	89,589
Loans and Grants to Local Bodies ..	2,511	2,091	24,886	7	87	235	29,817
Unemployment Relief Works ..	16,122	13,147	..	..	(c)	332	29,601
Housing (d) ..	5,632	4,365	4,045	16,426	786	4,973	36,227
Commonwealth Services	3,965	..	524	1,283	..	..	5,772
Other Public Works and Services ..	5,775	1,684	2,917	1,020	2,238	4,369	18,003
Primary Production—							
Closer Settlement ..	11,679	..	(e) 968	1,006	7,237	213	21,103
Land for Settlement	..	41,571	4,393	100	336	..	46,400
Soldier Settlement..	15,279	22,826	773	6,813	3,518	1,721	50,930
Advances to Settlers	1,964	3,764	117	1,630	2,060	463	9,998
Water Conservation	29,977	..	3,731	4,260	1,862	..	48,977
Irrigation and Drainage				5,599	3,548	..	
Rabbit-proof Fencing	288	985	128	(f)	340	..	1,741
Agriculture (g) ..	5,562	1,154	794	..	4,070	..	11,580
Agricultural Bank..	..	..	5,387	..	(h) 4,311	..	9,698
Forestry	3,032	10,005	5,338	1,352	1,387	1,422	22,536
Mines and Mineral Resources ..	1,360	786	2,585	2,415	5,086	..	12,232
Other	930	1,540	2,341	743	199	270	6,023
Other Purposes ..	89	(i) 6,693	123	(j) 3,235	(k) 10,925	..	21,065
Total Public Works, Services, etc., Expenditure ..	454,000	310,676	166,567	156,358	127,602	58,577	1,273,780
Other than Works, etc.—							
Discounts and Flotation Expenses ..	26,401	9,772	10,791	3,270	5,948	2,050	58,232
Revenue and General Cash Deficits ..	38,948	11,055	5,826	8,730	12,115	2,237	78,911
Treasury Bills Retired	..	..	2,857	..	..	..	2,857
Other	..	..	(l) 2,050	..	..	..	2,050
Grand Total ..	519,349	331,503	188,091	168,358	145,665	62,864	1,415,830

(a) Aggregate *Gross* Loan Expenditure. (b) Loans to Municipal Tramways Trust. (c) Not available separately. Distributed under various particular headings. (d) Expenditure from Commonwealth Loans under Commonwealth-State Housing Agreement has been excluded. (e) Under Prickly Pear and Land Act. (f) Included with Advances to Settlers. (g) Includes grain elevators, New South Wales and Victoria. (h) Includes Government Agency Department of Rural and Industries Bank, £2,680,000. (i) Includes Gas and Fuel Corporation shares, £2,551,000. (j) Includes £1,549,000 State Bank. (k) Includes Rural and Industries Bank, £5,674,000. (l) Contributions to Sinking Fund.

The figures in the foregoing table show the amounts actually expended from loan fund, and differ from those shown later in the statements relating to the public debt, which represent the amount of loans still outstanding. The statement above includes all expenditure, whether the loans have been repaid or are still in existence. As in the earlier tables on net loan expenditure, allowance has been made, however, for credits on account of repayments of advances to local government bodies, settlers, etc., the sale of assets, and transfers from other funds. In the public debt statement, on the other hand, loans repaid are not included, and in the case of loans still outstanding, each is shown according to the amount repayable at maturity, and not according to the amount originally available for expenditure.

5. **Total Loan Expenditure, 1948–49 to 1950–51.**—The following table shows particulars, in summary form, of the total loan expenditure in each State during each of the years 1948–49 to 1950–51.

STATE LOAN EXPENDITURE: SUMMARY.

(£'000.)

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Total.
1948–49.							
Works and Services—							
Gross Expenditure ..	22,960	12,727	7,118	7,149	3,819	4,393	58,166
Net Expenditure ..	22,056	10,534	5,866	5,214	3,580	3,511	50,761
Repayments	904	2,193	1,252	1,935	239	882	7,405
Other than Works, etc. (a)—							
Gross Expenditure ..	546	1,494	563	602	14	502	3,721
Net Expenditure ..	546	1,494	563	602	10	491	3,706
Repayments	..	..	..	..	(b) 4	11	15
Total Loan Expenditure—							
Gross	23,506	14,221	7,681	7,751	3,833	4,895	61,887
Net	22,602	12,028	6,429	5,816	3,590	4,002	54,467
Repayments	904	2,193	1,252	1,935	243	893	7,420
1949–50.							
Works and Services—							
Gross Expenditure ..	27,219	20,325	9,035	12,122	8,351	5,783	82,835
Net Expenditure ..	24,850	17,869	7,910	9,968	8,105	4,880	73,582
Repayments	2,369	2,456	1,125	2,154	246	903	9,253
Other than Works, etc. (a)—							
Gross Expenditure ..	1,184	2,819	288	71	491	88	4,941
Net Expenditure ..	1,184	2,819	288	54	485	62	4,892
Repayments	..	..	..	17	(b) 6	26	49
Total Loan Expenditure—							
Gross	28,403	23,144	9,323	12,193	8,842	5,871	87,776
Net	26,034	20,688	8,198	10,022	8,590	4,942	78,474
Repayments	2,369	2,456	1,125	2,171	252	929	9,302
1950–51.							
Works and Services—							
Gross Expenditure ..	41,168	35,309	17,698	20,601	11,404	15,200	141,380
Net Expenditure ..	38,149	32,024	16,031	18,285	10,327	13,531	128,347
Repayments	3,019	3,285	1,667	2,316	1,077	1,669	13,033
Other than Works, etc. (a)—							
Gross Expenditure—							
Discounts and Flotation Expenses	2,745	47	..	22	29	..	2,843
Revenue and General Cash Deficits ..	..	..	..	..	..	201	201
Contribution to Sinking Fund	..	..	150	..	..	..	150
Total	2,745	47	150	22	29	201	3,194
Net Expenditure—							
Discounts and Flotation Expenses	2,745	47	..	22	20	..	2,834
Revenue and General Cash Deficits ..	..	..	..	..	..	201	201
Contribution to Sinking Fund	..	..	150	..	..	..	150
Total	2,745	47	150	22	20	201	3,185
Repayments	..	..	..	..	(b) 9	..	9
Total Loan Expenditure—							
Gross	43,913	35,356	17,848	20,623	11,433	15,401	144,574
Net	40,894	32,071	16,181	18,307	10,347	13,732	131,532
Repayments	3,019	3,285	1,667	2,316	1,086	1,669	13,042

(a) Includes exchange, discounts and flotation expenses, revenue and general cash deficits. (b) From Consolidated Revenue Fund.

Information relating to the States Public Debt is given in part D. Commonwealth and State Public Debt (page 820).

C. COMMONWEALTH AND STATE FINANCE.

1. **Revenue and Expenditure.**—(i) *Consolidated Revenue Funds.* The following tables show the aggregate revenue and expenditure of the Consolidated Revenue Funds of the Commonwealth and States for each of the years 1938–39 and 1946–47 to 1950–51. In these tables the combined Commonwealth and State totals have been adjusted to exclude major duplications, but the separate Commonwealth and State figures are as shown in other sections of this Year Book. The items excluded from the adjusted figures include the following :—payments made by the Commonwealth to the States on account of tax reimbursements, interest under the Financial Agreement, Special Grants, Special Financial Assistance, Coal Strike Emergency Grants, Price Control Reimbursements and estimated payments of pay-roll tax by the States to the Commonwealth.

COMMONWEALTH AND STATE CONSOLIDATED REVENUE FUNDS : REVENUE.

Year ended 30th June—	Common-wealth.	State.	Total.	
			Unadjusted.	Adjusted.
	£'000.	£'000.	£'000.	£m.
1939	95,064	124,283	219,347	209.6
1947	431,256	171,854	603,110	549.4
1948	465,905	196,000	661,905	601.3
1949	554,377	224,049	778,426	706.6
1950	580,652	258,635	839,287	746.6
1951	841,792	304,432	1,146,224	1,032.0

COMMONWEALTH AND STATE CONSOLIDATED REVENUE FUNDS : EXPENDITURE.

Year ended 30th June—	Common-wealth.	State.	Total.	
			Unadjusted.	Adjusted.
	£'000.	£'000.	£'000.	£m.
1939	94,437	128,159	222,596	212.8
1947	431,256	173,857	605,113	549.3
1948	464,485	197,720	662,205	601.6
1949	554,377	226,425	780,802	709.0
1950	580,652	260,475	841,127	748.4
1951	841,792	304,501	1,146,293	1,032.0

(ii) *Loan Expenditure.* The aggregate gross and net loan expenditures of the Commonwealth and States on Works and Services for the years 1938–39 and 1946–47 to 1950–51 are shown in the following table :—

COMMONWEALTH AND STATE LOAN EXPENDITURE : WORKS AND SERVICES.(a)
(£'000.)

Year ended 30th June—	Gross Loan Expenditure.			Net Loan Expenditure.		
	Common-wealth.(b)	State.	Total.	Common-wealth.(b)	State.	Total.
1939	3,913	21,399	25,312	3,594	13,178	16,772
1947	48,909	30,337	79,246	48,895	23,809	72,704
1948	13,305	45,177	58,482	13,126	37,609	50,735
1949	14,492	58,166	72,658	−4,253	50,761	46,508
1950	42,698	82,835	125,533	42,682	73,582	116,264
1951	50,413	141,380	191,793	50,383	128,347	178,730

(a) Excludes expenditure on loan flotations, funding deficits, etc. (b) Includes expenditure on Defence, War (1939–45) and Repatriation Services. Excludes payments to National Debt Sinking Fund from proceeds of loan from International Bank of Reconstruction and Development (*see* page 838).

NOTE.—Minus sign (−) indicates an excess of repayments to loan funds.

2. **Taxation.**—The following table shows the combined Commonwealth and State taxation, and the amount per head of population, for the years 1938–39 and 1946–47 to 1950–51. Taxation collections by the State Governments which are not paid into the Consolidated Revenue Funds have been included.

COMMONWEALTH AND STATE TAXATION: TOTAL NET COLLECTIONS.

NET COLLECTIONS.

(£'000.)

Particulars.	1938–39.	1946–47.	1947–48.	1948–49.	1949–50.	1950–51.
Commonwealth (*a*)—						
Income Tax	11,882	207,765	232,900	272,347	279,654	341,957
Customs and Excise ..	47,633	102,246	115,605	126,200	143,883	165,004
Sales Tax	9,308	36,265	34,729	39,029	42,425	57,173
Pay-roll Tax	..	13,647	16,595	19,803	22,728	28,721
Wheat Tax and Export Charge	..	5,500	5,730	18,086	12,633	13,353
Wool Contributory Charge	..	4,497	1,424	1,029	1,439	44,844
Wool Deduction ..	..	..	..	..	..	109,531
Other	5,288	15,696	15,430	14,319	16,197	16,604
Total	74,111	385,616	422,413	490,813	518,959	777,187
State (*b*)—						
Income Tax	29,791	(*c*) 531	(*c*) 416	(*c*) 257	(*c*) 267	(*c*) 291
Other	20,716	27,922	31,747	36,167	41,511	51,385
Total	50,507	*d*28,453	*d*32,163	*d*36,424	*d*41,778	*d*51,676
Grand Total ..	124,618	414,069	454,576	527,237	560,737	828,863

PER HEAD OF POPULATION.

(£ *s.* *d.*)

Particulars.	1938–39.	1946–47.	1947–48.	1948–49.	1949–50.	1950–51.
Commonwealth—						
Income Tax	1 14 3	27 12 8	30 9 8	34 18 4	34 14 10	41 2 10
Customs and Excise ..	6 17 5	13 12 0	15 2 7	16 3 8	17 17 5	19 17 0
Sales Tax	1 6 10	4 16 5	4 10 11	5 0 1	5 5 5	6 17 7
Pay-roll Tax	..	1 16 4	2 3 6	2 10 9	2 16 6	3 9 1
Wheat Tax and Export Charge	..	0 14 8	0 15 0	2 6 5	1 11 5	1 12 2
Wool Contributory Charge	..	0 12 0	0 3 9	0 2 8	0 3 7	5 7 11
Wool Deduction ..	..	..	..	..	..	13 3 7
Other	0 15 3	2 1 8	2 0 4	1 16 9	2 0 3	2 0 0
Total	10 13 9	51 5 9	55 5 9	62 18 8	64 9 5	93 10 2
State—						
Income Tax	4 6 2	0 1 5	0 1 1	0 0 8	0 0 8	0 0 8
Other	2 19 11	3 14 7	4 3 5	4 13 1	5 3 7	6 4 3
Total	7 6 1	3 16 0	4 4 6	4 13 9	5 4 3	6 4 11
Grand Total ..	17 19 5	55 1 5	59 10 0	67 12 1	69 13 3	99 14 7

(*a*) For details *see* page 761. (*b*) For details *see* pages 802–7. (*c*) Arrears of State Income Tax.
(*d*) Excludes Tax Reimbursements.

D. COMMONWEALTH AND STATE PUBLIC DEBT.

§ 1. General.

Under the Financial Agreement between the Commonwealth and the States in 1927 the Commonwealth and State Public Debts were amalgamated and the Commonwealth Government accepted responsibility for the State Public Debts. The Commonwealth is reimbursed by the States for interest, exchange, etc., paid on their behalf and the debt is redeemed from a sinking fund to which both the Commonwealth and the States make contributions. Under the agreement the Commonwealth arranges for all borrowings on behalf of the Commonwealth and the States, and Commonwealth securities are issued for all money borrowed.

In the statistical tables relating to Public Debt the units of currency for debt outstanding and interest payable, with the exception referred to below, are :—Debt in Australia—£ Australian ; Debt in London—£ Sterling ; Debt in New York—£ (converted from dollars at the rate of $4.8665 to £1).

The totals shown represent the total " face " or " book " value of the debt without adjustment on account of the differences in currency mentioned above.

In § 3. par. 5 only, details of the debt for the Commonwealth and each State are given in Australian currency.

§ 2. The Financial Agreement between the Commonwealth and the States.

1. **General.**—Full details of the Financial Agreement between the Commonwealth and the States are given in earlier issues of the Official Year Book (*see* No. 37, pages 685 to 690). In this issue a summary of the main provisions only is given.

2. **Australian Loan Council.**—The Australian Loan Council was set up to co-ordinate the public borrowings of the Commonwealth and the States. It consists of the Prime Minister of the Commonwealth as Chairman and the Premier of each State, or Ministers nominated by them in writing. Each year the Loan Council examines the loan programmes of the Commonwealth and the States and determines the total amount to be borrowed during the year. Borrowings by the Commonwealth for defence purposes are not subject to decisions of the Loan Council.

3. **Loan Raisings for the Commonwealth and States.**—Subject to the decisions of the Loan Council, the Commonwealth arranges for all borrowings for or on behalf of the Commonwealth or any State, and for all conversions, renewals, redemptions, and consolidations of the Public Debts of the Commonwealth and of the States.

If the Loan Council unanimously decides, however, a State may borrow outside Australia in the name of the State, and may issue securities for the amount so borrowed. The Commonwealth then guarantees that the State will fulfil all its obligations to bondholders in respect of the money so borrowed and the money is deemed to be borrowed by the Commonwealth for and on behalf of the State.

Subject to any maximum limits decided upon by the Loan Council for interest, brokerage, discount and other charges, the Commonwealth or any State may—

- (i) Borrow within its own territory, for any purpose, money from any authorities, bodies, funds or institutions (including Savings Banks) constituted or established under Commonwealth or State law or practice ;
- (ii) Borrow from the public by means of counter sales of securities ; and
- (iii) Use any available public moneys.

However, any securities issued for money so borrowed or used must be Commonwealth securities on terms approved by the Loan Council.

4. **Taking over of State Public Debts.**—The Commonwealth took over on 1st July, 1929—

- (*a*) the balance then unpaid of the gross public debt of each State existing on 30th June, 1927 ; and
- (*b*) all other debts of each State existing on 1st July, 1929 for money borrowed by that State deemed by the Agreement to be money borrowed by the Commonwealth for and on behalf of the State,

and in respect of these debts assumed, as between the Commonwealth and the States, the liabilities of the States to bond holders.

5. **Transferred Properties.**—In respect of State properties transferred to the Commonwealth under Section 85 of the Constitution, the States, as from 1st July, 1929, were discharged from any liability in respect of principal, interest or sinking fund on so much of the debts bearing interest at 5 per cent. per annum, taken over by the Commonwealth, as amounted to the agreed value of these properties, namely £10,924,323.

6. **Payment of Interest.**—For a period of 58 years from 1st July, 1927 the Commonwealth agreed to contribute the sum of £7,584,912 each year towards the interest payable on the State debts. The balance of the interest payable on the State debts is paid to the Commonwealth by the States.

7. **Sinking Fund.**—(i) *State Public Debt existing at 30th June, 1927.* A sinking fund at the rate of 7s. 6d. per annum for each £100 of the net public debts of the States existing on 30th June, 1927, and conversions thereof, was established under the terms of the Agreement. The Commonwealth contributes annually from revenue 2s. 6d. per cent. on the net public debts of the States existing at 30th June, 1927 and each State contributes annually 5s. per cent. on the net public debt of such State at 30th June, 1927. The payments of the Commonwealth and of all States except New South Wales will continue for a period of 58 years from 1st July, 1927, and those of New South Wales for a similar period from 1st July, 1928.

(ii) *New Borrowings.* On new borrowings after 1st July, 1927 (except those for redemptions or conversions, or funding a State deficit) a sinking fund at the rate of 10s. per cent. per annum was established and the State and the Commonwealth contribute from revenue equal shares for a period of 53 years from the date of raising. (New South Wales did not commence sinking fund contributions in respect of new loans raised in the financial year 1927–28 until 1st July, 1928.)

(iii) *Loans raised to meet a Revenue Deficit.* In respect of any loan (except any of the loans referred to in par. (iv) below) raised after 30th June, 1927 by a State to meet a revenue deficit accruing after that date, no sinking fund contribution is made by the Commonwealth, but the State makes a sinking fund contribution at the rate of not less than 4 per cent. per annum of the loan for a period sufficient to provide for the redemption of the loan, the contributions being deemed to accumulate at the rate of 4½ per cent. per annum compound interest.

(iv) *Loans raised to meet Revenue Deficits between 30th June, 1927 and 1st July, 1935.* In respect of loans raised by a State or by the Commonwealth on behalf of a State, on the security of Commonwealth Treasury Bills, to meet a revenue deficit accruing after 30th June, 1927 and before 1st July, 1935, special contributions are payable Details of these contributions are given in Official Year Book No. 37, pages 688 and 689.

(v) *National Debt Commission.* The sinking funds established are controlled by the National Debt Commission which may arrange with any State to act as its agent in connexion with payments due to bond holders. Except where the conditions relating to sinking funds, redemption funds, and funds of a like nature held by a State on 30th June, 1929, precluded such transfer, all such funds were transferred to the National Debt Commission.

(vi) *Operation of Sinking Fund.* Sinking fund contributions made in respect of the debts of a State, and funds of that State transferred to the National Debt Commission, are not accumulated but must be applied, whenever expedient, to the redemption and repurchase of loan securities. When such a loan security is repurchased or redeemed by the National Debt Commission, it is cancelled, and the State, in addition to sinking fund contributions otherwise payable, pays a further annual sinking fund contribution at the rate of 4½ per cent. on the face value of the cancelled security.

(vii) *Oversea Debt.* Sinking fund contributions in respect of oversea debt shall be calculated at the mint par of exchange prevailing on 1st July, 1927.

8. **Borrowing by Semi-Governmental Authorities.**—It was realized at the inception of the Loan Council that, in the interests of co-ordinated borrowing, the Council should be advised of borrowings of large amounts by semi-governmental authorities. In May, 1936, all resolutions passed by the Loan Council in connexion with semi-governmental borrowings were consolidated into one set of rules, which superseded all previous resolutions. This set of rules is regarded as the "Gentlemen's Agreement", and provides, *inter alia*, for the submission of annual loan programmes in respect of semi-governmental authorities proposing to raise £100,000 or more in a year, for the consideration of such programmes in conjunction with the loan programme of the Government concerned, and for the fixing of the terms of individual semi-governmental loans coming within the scope of the annual programme.

§ 3. Commonwealth and State Public Debt Outstanding.

1. **Public Debt and Annual Interest Payable at 30th June, 1951.**—In the following table details are given of the Commonwealth and State Public Debt and annual interest payable at 30th June, 1951.

COMMONWEALTH AND STATE PUBLIC DEBT AND ANNUAL INTEREST PAYABLE AT 30th JUNE, 1951.

Particulars.	Maturing in—			Total.
	Australia.	London.	New York.	
DEBT.				
Commonwealth Debt—	£A.'000.	£ Stg.'000.	£'000.	£'000.
War (1914–18) Debt(*a*)—				
Stock and Bonds	148,888	8,333	..	157,221
War and Peace Savings Certificates and Stamps and War Gratuity Bonds ..	139	..	..	139
Total War (1914–18) Debt.. ..	149,027	8,333	..	157,360
War (1939–45) Debt—				
Stock and Bonds	1,062,032	5,775	..	1,067,807
Advance Loan Subscriptions	1,027	..	..	1,027
National Savings Bonds	1,792	..	..	1,792
War Savings and Savings Certificates ..	48,115	..	..	48,115
War Savings Stamps	136	..	..	136
National Savings Stamps	19	..	..	19
Treasury Bills, Internal	278,000	..	..	278,000
Treasury Bills, Public..	108,280	..	..	108,280
Total War (1939–45) Debt.. ..	1,499,401	5,775	..	1,505,176
Works and Other Purposes—				
Stock and Bonds	111,451	48,749	15,521	175,721
Treasury Bills and Debentures	..	1,220	..	1,220
Treasury Bills, Internal	10,810	..	..	10,810
International Bank Dollar Loan ..	..	..	1,862	1,862
Total Works and Other Purposes ..	122,261	49,969	17,383	189,613
Total Commonwealth Debt ..	1,770,689	64,077	17,383	1,852,149
State Debt—				
Stock and Bonds	851,643	260,152	24,211	1,136,006
Debentures	39,568	..	..	39,568
Treasury Bills and Debentures—Short-term	..	22,868	..	22,868
Treasury Bills, Public	2,400	..	..	2,400
Balance of Debts of States taken over by Commonwealth and still represented by State Securities	..	7,496	..	7,496
Total State Debt..	893,611	290,516	24,211	1,208,338
Grand Total Commonwealth and State Debt	2,664,300	354,593	41,594	3,060,487

(*a*) *See* footnote (*a*) page 823.

COMMONWEALTH AND STATE PUBLIC DEBT AND ANNUAL INTEREST PAYABLE AT 30th JUNE, 1951—*continued.*

Particulars.	Maturing in— Australia.	Maturing in— London.	Maturing in— New York.	Total.
DEBT PER HEAD OF POPULATION.				
	£ s. d. (Aust.)	£ s. d. (Stg.)	£ s. d.	£ s. d.
Commonwealth Debt—				
War (1914–18) Debt(*a*)	17 13 6	0 19 9	..	18 13 3
War (1939–45) Debt	177 16 8	0 13 9	..	178 10 5
Works and Other Purposes	14 10 0	5 18 6	2 1 3	22 9 9
Total Commonwealth Debt ..	210 0 2	7 12 0	2 1 3	219 13 5
Total State Debt..	106 10 2	34 12 6	2 17 9	144 0 5
Grand Total Commonwealth and State Debt	315 19 11	42 1 2	4 18 8	362 19 9
ANNUAL INTEREST PAYABLE.				
	£Aust.	£ Stg.	£	£
Commonwealth Debt—				
War (1914–18) Debt (*a*)	4,791,774	251,611	..	5,043,385
War (1939–45) Debt	38,053,127	231,000	..	38,284,127
Works and Other Purposes	3,600,197	1,654,335	762,240	6,016,772
Total Commonwealth Debt ..	46,445,098	2,136,946	762,240	49,344,284
Total State Debt	27,171,696	9,032,134	896,253	37,100,083
Grand Total Commonwealth and State Debt	73,616,794	11,169,080	1,658,493	86,444,367
ANNUAL INTEREST PAYABLE PER HEAD OF POPULATION.				
	£ s. d. (Aust.)	£ s. d. (Stg.)	£ s. d.	£ s. d.
Commonwealth Debt—				
War (1914–18) Debt (*a*)	0 11 4	0 0 7	..	0 11 11
War (1939–45) Debt	4 10 3	0 0 7	..	4 10 10
Works and Other Purposes	0 8 7	0 3 11	0 1 10	0 14 4
Total Commonwealth Debt ..	5 10 2	0 5 1	0 1 10	5 17 1
Total State Debt	3 4 9	1 1 6	0 2 2	4 8 5
Grand Total Commonwealth and State Debt	8 14 8	1 6 6	0 3 11	10 5 1
AVERAGE RATE OF INTEREST PAYABLE.				
	£ s. d. (Aust.)	£ s. d. (Stg.)	£ s. d.	£ s. d.
Commonwealth Debt—				
War (1914–18) Debt (*a*)	3 4 7	3 0 5	..	3 4 5
War (1939–45) Debt	2 10 9	4 0 0	..	2 10 11
Works and Other Purposes	2 18 11	3 6 3	4 7 8	3 3 6
Total Commonwealth Debt ..	2 12 6	3 6 8	4 7 8	2 13 4
Total State Debt	3 0 10	3 2 2	3 14 0	3 1 5
Grand Total Commonwealth and State Debt	2 15 4	3 3 0	3 19 9	2 16 6

(*a*) Excludes War (1914–18) Debt due to United Kingdom Government (£79,724,220). Repayment of this debt and interest thereon (£3,919,774) were suspended in 1931.

2. **Public Debt and Annual Interest Payable, 1939 and 1947 to 1951.**—In the following table details are given of the Public Debt and Annual Interest Payable at 30th June, 1939 and 1947 to 1951 :—

COMMONWEALTH AND STATE PUBLIC DEBT AND ANNUAL INTEREST PAYABLE AT 30th JUNE.

Particulars.	1939.	1947.	1948.	1949.	1950.	1951.
DEBT.						
Commonwealth Debt—						
War (1914–18) Debt—						
Australia .. £ A.'000.	175,194	158,742	154,046	153,900	156,730	149,027
London (*a*) £ Stg.'000.	11,020	10,645	10,645	10,645	8,333	8,333
Total War (1914–18) Debt £'000.	186,214	169,387	164,691	164,545	165,063	157,360
War (1939–45) Debt—						
Australia .. £ A.'000.	..	1,531,532	1,508,195	1,485,877	1,491,476	1,499,401
London .. £ Stg.'000.	..	5,775	5,775	5,775	5,775	5,775
Total War (1939–45) Debt £'000.	..	1,537,307	1,513,970	1,491,652	1,497,251	1,505,176
Works and Other Purposes—						
Australia .. £ A.'000.	43,302	65,098	77,906	92,433	101,204	122,261
London .. £ Stg.'000.	72,097	53,285	52,991	52,741	51,378	49,969
New York .. £'000.	15,914	15,798	15,855	15,798	15,731	17,383
Total Debt for Works, etc. £'000.	131,313	134,181	146,752	160,972	168,313	189,613
Total Commonwealth Debt—						
Australia .. £ A.'000.	218,496	1,755,372	1,740,147	1,732,210	1,749,410	1,770,689
London (*a*) £ Stg.'000.	83,117	69,705	69,411	69,161	65,486	64,077
New York .. £'000.	15,914	15,798	15,855	15,798	15,731	17,383
Total Commonwealth Debt £'000.	317,527	1,840,875	1,825,413	1,817,169	1,830,627	1,852,149
State Debt—						
Australia .. £ A.'000.	485,179	568,141	611,763	666,873	750,108	893,611
London .. £ Stg.'000.	384,328	333,306	328,190	317,348	304,261	290,516
New York .. £'000.	28,265	24,802	24,849	24,663	24,440	24,211
Total State Debt £'000.	897,772	926,249	964,802	1,008,884	1,078,809	1,208,338
Grand Total Commonwealth and State Debt £'000.	1,215,299	2,767,124	2,790,215	2,826,053	2,909,436	3,060,487
ANNUAL INTEREST PAYABLE.						
Commonwealth Debt—						
War (1914–18) Debt—						
Australia .. £ A.'000.	6,950	5,978	5,657	5,657	5,750	4,792
London (*a*) £ Stg.'000.	426	396	396	338	251	251
Total War (1914–18) Debt £'000.	7,376	6,374	6,053	5,995	6,001	5,043
Average Rate .. %	£3 19s. 3d.	£3 15s. 4d.	£3 13s. 7d.	£3 12s. 11d.	£3 12s. 9d.	£3 4s. 5d.
War (1939–45) Debt—						
Australia .. £ A.'000.	..	39,474	39,942	39,667	39,773	38,053
London .. £ Stg.'000.	..	231	231	231	231	231
Total War (1939–45) Debt £'000.	..	39,705	40,173	39,898	40,004	38,284
Average Rate .. %	..	£2 11s. 8d.	£2 13s. 1d.	£2 13s. 8d.	£2 13s. 6d.	£2 10s. 11d.

(*a*) *See* footnote (*a*) page 823.

COMMONWEALTH AND STATE PUBLIC DEBT AND ANNUAL INTEREST PAYABLE AT 30th JUNE—*continued.*

Particulars.	1939.	1947.	1948.	1949.	1950.	1951.
ANNUAL INTEREST PAYABLE—*continued.*						
Commonwealth Debt—*continued.*						
Works and Other Purposes—						
Australia .. £ A.'000.	1,394	1,893	2,293	2,726	3,003	3,600
London £Stg.'000.	2,978	1,776	1,768	1,741	1,695	1,655
New York .. £'000.	778	732	697	695	693	762
Total Debt for Works, etc. £'000.	5,150	4,401	4,758	5,162	5,391	6,017
Average Rate .. %	£3 18s. 5d.	£3 5s. 7d.	£3 4s. 10d.	£3 4s. 2d.	£3 4s. 1d.	£3 3s. 6d.
Total Commonwealth Debt						
Australia .. £ A.'000.	8,344	47,345	47,892	48,050	48,526	46,445
London (*a*) £ Stg.'000.	3,404	2,403	2,395	2,310	2,177	2,137
New York .. £'000.	778	732	697	695	693	762
Total Commonwealth Debt £'000.	12,526	50,480	50,984	51,055	51,396	49,344
Average Rate .. %	£3 18s. 11d.	£2 14s. 10d.	£2 15s. 11d.	£2 16s. 4d.	£2 16s. 2d.	£2 13s. 4d.
State Debt—						
Australia .. .. £ A.'000.	17,240	18,436	19,686	21,396	23,771	27,172
London .. £ Stg.'000.	14,963	11,293	10,737	9,983	9,506	9,032
New York .. .. £'000.	1,441	1,000	918	912	904	896
Total State Debt £'000.	33,644	30,729	31,341	32,291	34,181	37,100
Average Rate .. %	£3 14s. 11d.	£3 6s. 4d.	£3 5s. 0d.	£3 4s. 0d.	£3 3s. 4d.	£3 1s. 5d.
Grand Total Commonwealth and State Debt £'000.	46,170	81,209	82,325	83,346	85,577	86,444
Average Rate .. %	£3 16s. 0d.	£2 18s. 9d.	£2 19s. 0d.	£2 19s. 1d.	£2 18s. 10d.	£2 16s. 6d.

(*a*) *See* footnote (*a*) page 823.

3. **State Public Debt and Annual Interest Payable at 30th June, 1951.**—In paragraphs 1 and 2 totals only of the States' Public Debt are given. In the following table the total debt of each State and the amounts outstanding per head of population at 30th June, 1951 are shown according to the place of flotation :—

STATE PUBLIC DEBT AT 30th JUNE, 1951 : PLACE OF FLOTATION OF LOANS.

State.	Maturing in Australia.	Maturing Overseas.			Grand Total.
		London.	New York.	Total Overseas.	
DEBT.					
	£A.'000.	£ Stg.'000.	£'000.	£'000.	£'000.
New South Wales ..	328,354	122,943	10,944	133,887	462,241
Victoria	201,151	45,296	4,486	49,782	250,933
Queensland	117,047	44,324	4,786	49,110	166,157
South Australia ..	111,847	34,797	1,744	36,541	148,388
Western Australia ..	85,053	36,112	2,021	38,133	123,186
Tasmania	50,159	7,044	230	7,274	57,433
Total ..	893,611	290,516	24,211	314,727	1,208,338

STATE PUBLIC DEBT AT 30th JUNE, 1951: PLACE OF FLOTATION OF LOANS —*continued.*

State.	Maturing in Australia.	Maturing Overseas.			Grand Total.
		London.	New York.	Total Overseas.	
DEBT PER HEAD OF POPULATION.					
	£ s. d. (Aust.)	£ s. d. (Stg.)	£ s. d.	£ s. d.	£ s. d.
New South Wales ..	98 19 8	37 1 3	3 6 0	40 7 3	139 6 11
Victoria	88 12 10	19 19 3	1 19 6	21 18 9	110 11 7
Queensland	96 12 8	36 11 11	3 19 0	40 10 11	137 3 7
South Australia ..	155 6 8	48 6 6	2 8 6	50 15 0	206 1 8
Western Australia ..	146 5 5	62 2 1	3 9 6	65 11 7	211 17 0
Tasmania	172 9 3	24 4 5	0 15 10	25 0 3	197 9 6
Total ..	106 10 2	34 12 6	2 17 9	37 10 3	144 0 5

The following table shows, as at 30th June, 1951, the amount of interest payable, together with the average rate of interest payable, with separate information for London, New York and Australian maturities.

STATE PUBLIC DEBT AT 30th JUNE, 1951: ANNUAL INTEREST PAYABLE—LOCATION.

State.	Australia.	Overseas.			Grand Total.
		London.	New York.	Total.	
ANNUAL INTEREST PAYABLE.					
	£A.'000.	£ Stg.'000.	£'000.	£'000.	£'000.
New South Wales ..	9,806	3,746	368	4,114	13,920
Victoria	6,211	1,437	181	1,618	7,829
Queensland	3,640	1,472	175	1,647	5,287
South Australia ..	3,394	1,062	71	1,133	4,527
Western Australia ..	2,581	1,094	93	1,187	3,768
Tasmania	1,540	221	8	229	1,769
Total ..	27,172	9,032	896	9,928	37,100

STATE PUBLIC DEBT AT 30th JUNE, 1951: ANNUAL INTEREST PAYABLE—LOCATION—*continued.*

State.	Australia.	Overseas.			Grand Total.
		London.	New York.	Total.	
	AVERAGE RATE OF INTEREST PAYABLE.				
	£ *s.* *d.* (Aust.)	£ *s.* *d.* (Stg.)	£ *s.* *d.*	£ *s.* *d.*	£ *s.* *d.*
New South Wales ..	2 19 9	3 1 0	3 7 3	3 1 6	3 0 3
Victoria	3 1 9	3 3 5	4 1 0	3 5 0	3 2 5
Queensland.. ..	3 2 2	3 6 5	3 13 1	3 7 1	3 3 8
South Australia ..	3 0 8	3 1 0	4 1 2	3 2 0	3 1 0
Western Australia ..	3 0 8	3 0 7	4 11 7	3 2 3	3 1 2
Tasmania	3 1 5	3 2 9	3 7 6	3 2 10	3 1 7
Total ..	3 0 10	3 2 2	3 14 0	3 3 1	3 1 5

4. **State Public Debt, 1939 and 1947 to 1951.**—In the following table the debt of each State and the amounts outstanding per head of population at 30th June, 1939 and 1947 to 1951 are shown.

STATE PUBLIC DEBT.

30th June—	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Total.
			DEBT. (£'000.)				
1939	359,844	179,698	127,503	108,887	95,473	26,367	897,772
1947	362,028	183,096	135,356	114,134	99,002	32,633	926,249
1948	384,078	188,946	138,694	118,852	100,275	33,957	964,802
1949	396,493	202,883	144,125	124,720	102,916	37,747	1,008,884
1950	425,289	217,413	150,662	133,174	109,550	42,721	1,078,809
1951	462,241	250,933	166,157	148,388	123,186	57,433	1,208,338
			DEBT PER HEAD OF POPULATION. (£ *s.* *d.*)				
1939	130 18 7	95 13 3	125 4 11	182 10 6	203 2 4	111 1 2	129 3 11
1947	121 5 9	89 2 2	122 6 9	176 13 2	197 0 6	126 18 9	122 13 1
1948	126 19 1	90 7 6	123 0 7	180 12 5	194 11 11	129 8 6	125 12 10
1949	127 6 10	94 16 11	125 4 10	185 6 0	193 4 2	140 2 6	128 1 1
1950	131 17 3	98 13 11	127 5 5	190 3 7	196 7 1	152 18 3	132 7 7
1951	139 6 11	110 11 7	137 3 7	206 1 8	211 17 0	197 9 6	144 0 5

In some States certain public utilities such as Tramways, Water Supply and Sewerage, Harbour Services, etc., are controlled by Boards or Trusts, which, in addition to receiving advances from the Central Government, raise loans by public borrowing on their own behalf, while in other States these services are controlled by the Central Governments. Comparison of the debts of the States is therefore difficult, but on page 833 figures showing the aggregate debts of the States, including these local and semi-governmental authorities, are shown for the years 1938–39 and 1946–47 to 1949–50.

5. **Public Debt and Interest Payable in Australian Currency.**—In the foregoing tables relating to Commonwealth and State Public Debt the debt outstanding in London is expressed in sterling, and debt outstanding in New York is expressed in pounds converted

from dollars at the rate of $4.8665 to £1. This method of showing the debt gives no indication of the amount that the Australian Government would have to find to repay the debt. In the following tables the public debt and the interest payable are shown in terms of Australian currency throughout. Debt in London and in New York has been converted to Australian currency at the selling rate of exchange on 30th June, 1951.

COMMONWEALTH AND STATE PUBLIC DEBT AND INTEREST PAYABLE AT 30th JUNE, 1951: AUSTRALIAN CURRENCY.

(£A.'000.)

Particulars.	Maturing in— Australia.	London.(a)	New York. (b)	Total.
DEBT.				
Commonwealth Debt—				
War (1914–18) Debt	149,027	10,458	..	159,485
War (1939–45) Debt	1,499,401	7,248	..	1,506,649
Works and Other Purposes ..	122,261	62,711	37,976	222,948
Total Commonwealth Debt ..	1,770,689	80,417	37,976	1,889,082
State Debt—				
New South Wales	328,354	154,294	23,909	506,557
Victoria..	201,151	56,846	9,801	267,798
Queensland	117,047	55,626	10,457	183,130
South Australia	111,847	43,670	3,811	159,328
Western Australia	85,053	45,321	4,415	134,789
Tasmania	50,159	8,840	503	59,502
Total State Debt	893,611	364,597	52,896	1,311,104
Commonwealth and State Debt—				
Short-term Debt	399,490	30,230	..	429,720
Other Debt	2,264,810	414,784	90,872	2,770,466
Grand Total Commonwealth and State Debt	2,664,300	445,014	90,872	3,200,186
ANNUAL INTEREST PAYABLE.				
Commonwealth Debt—				
War (1914–18) Debt	4,792	316	..	5,108
War (1939–45) Debt	38,053	290	..	38,343
Works and Other Purposes ..	3,600	2,076	1,665	7,341
Total Commonwealth Debt ..	46,445	2,682	1,665	50,792
State Debt—				
New South Wales	9,806	4,702	805	15,313
Victoria..	6,211	1,803	397	8,411
Queensland	3,640	1,847	382	5,869
South Australia	3,394	1,333	155	4,882
Western Australia	2,581	1,373	202	4,156
Tasmania	1,540	277	17	1,834
Total State Debt	27,172	11,335	1,958	40,465
Grand Total Commonwealth and State Debt	73,617	14,017	3,623	91,257

(a) Converted at rate of £ stg. 100 = £A. 125 10s. (b) Converted at rate of $2.2275 = £A. 1.

6. **Public Debt at each Rate of Interest.**—(i) *Commonwealth.* The accompanying table shows particulars of the amounts of debt for Commonwealth purposes at 30th June, 1951, at each rate of interest :—

COMMONWEALTH PUBLIC DEBT AT 30th JUNE, 1951 : AMOUNTS AT EACH RATE OF INTEREST.

Rate of Interest.	Maturing in—			Total.
	Australia.	London.(*a*)	New York.	
Per cent.	£A.'000.	£Stg.'000.	£'000.	£'000.
5.0	..	..	9,803	9,803
4.25	..	..	(*b*) 1,862	1,862
4.0	..	5,775	..	5,775
3.875	37,497	..	..	37,497
3.75	(*c*) 7,543	6,951	..	14,494
3.5	..	5,974	1,159	7,133
3.375	154	..	3,398	3,552
3.25	884,739	34,362	1,161	920,262
3.2391	(*d*) 32,100	..	..	32,100
3.125	304,967	..	..	304,967
3.0	14,162	9,795	..	23,957
2.8347	(*e*) 16,015	..	..	16,015
2.25	..	(*f*) 470	..	470
2.0	(*g*) 74,966	(*f*) 750	..	75,716
0.75	(*h*) 397,090	..	..	397,090
Overdue	(*i*) 1,287	..	..	1,287
War (1914–18) Savings Stamps	14	..	..	14
War (1939–45) Savings Stamps	136	..	..	136
National Savings Stamps ..	19	..	..	19
Total	1,770,689	64,077	17,383	1,852,149

(*a*) Excludes War (1914–18) Debt due to United Kingdom Government, £79,724,000 (rate of interest 4.91667 per cent.) (*b*) International Bank Dollar Loan. (*c*) Includes Advance Loan Subscriptions, £1,004,000. (*d*) War Savings and Savings Certificates—7 years series. (*e*) Savings Certificates—5 years series. (*f*) Short-term Treasury Bills and Debentures. (*g*) Includes Advance Loan Subscriptions, £23,000. (*h*) Internal Treasury Bills, £288,810,000 and Public Treasury Bills, £108,280,000. (*i*) Includes War (1914–18) Gratuity Bonds, £12,000 and War (1914–18) Savings Certificates, £4,000.

(ii) *States.* The following table shows, for the States combined, particulars of the debt at each rate of interest and according to the domicile of the debt.

STATE PUBLIC DEBT AT 30th JUNE, 1951 : AMOUNTS AT EACH RATE OF INTEREST.

Rate of Interest.	Maturing in—			Total.
	Australia.	London.	New York.	
Per Cent.	£A.'000.	£ Stg.'000.	£'000.	£'000.
5.0	..	1	4,793	4,794
4.0	589	11,546	..	12,135
3.875	57,233	..	..	57,233
3.75	33,075	..	..	33,075
3.625	107	..	..	107
3.5	893	72,727	7,482	81,102
3.4875	1,546	..	..	1,546
3.375	..	..	5,438	5,438
3.25	160,901	57,967	6,498	225,366
3.125	497,318	..	..	497,318
3.1	4,066	..	..	4,066
3.0	37,819	91,015	..	128,834
2.75	..	15,949	..	15,949
2.7125	418	..	..	418
2.5	2	18,441	..	18,443
2.325	1,730	..	..	1,730
2.25	..	(a) 21,377	..	21,377
2.0	53,098	(a) 1,491	..	54,589
1.5	2,846	..	..	2,846
1.0	39,568	..	..	39,568
0.75	(a) 2,400	..	..	2,400
Overdue	2	2	..	4
Total Debt ..	893,611	290,516	24,211	1,208,338

(a) Short-term debt.

The variations in the rates of interest payable on the public debts of the States from 1901 to 1951 appear in the following table which shows the percentages of the total debts in various interest groups during the years specified, and the average rate of interest in each year :—

STATE PUBLIC DEBT : PERCENTAGES, ETC., IN VARIOUS INTEREST GROUPS.

Interest Rates.	Percentage of Total Debt at 30th June—							
	1901.	1911.	1921.	1931.	1939.	1941.	1950.	1951.
Not exceeding 3 per cent.	18.0	17.9	10.2	5.3	19.1	18.5	23.6	23.7
Exceeding 3 per cent. but not exceeding 4 per cent.	78.5	81.9	45.4	17.2	62.4	63.6	76.0	75.9
Exceeding 4 per cent. but not exceeding 5 per cent.	3.1	0.1	15.6	36.8	16.0	15.5	0.4	0.4
Exceeding 5 per cent. but not exceeding 6 per cent.	0.4	0.1	23.5	38.4	2.3	2.2	..	..
Exceeding 6 per cent. ..	..	..	5.3	2.3	0.2	0.2	..	..
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Average Rate of Interest Payable	3.7	3.6	4.4	4.9	3.7	3.7	3.2	3.1

7. **Dates of Maturity.**—(i) *Commonwealth.* In the following table the Commonwealth Public Debt at 30th June, 1951 is classified according to the latest, and the earliest, years of maturity.

COMMONWEALTH PUBLIC DEBT AT 30th JUNE, 1951(*a*) : CLASSIFIED ACCORDING TO LATEST, AND EARLIEST, YEARS OF MATURITY.

Year of Maturity.	Latest Year.				Earliest Year.			
	Maturing in—			Total.	Maturing in—			Total.
	Australia.	London.	New York.		Australia.	London.	New York.	
	£A.'000.	£ Stg. '000.	£'000.	£'000.	£A.'000.	£ Stg. '000.	£'000.	£'000.
Before 30th June, 1951	..	..	..	..	757,431	..	..	757,431
1951–52(*b*)	433,629	1,220	..	434,849	433,629	1,220	..	434,849
1952–53	30,365	..	..	30,365	70,937	6,951	9,803	87,691
1953–54	(*c*)11,491	..	..	11,491	(*c*)13,209	..	..	13,209
1954–55	40,572	..	..	40,572	..	..	..	..
1955–56	8,513	..	9,803	18,316	134,103	16,234	..	150,337
1956–57	44,133	6,951	1,161	52,245	86,207	..	1,161	87,368
1957–58	44,702	..	..	44,702	12,570	..	..	12,570
1958–59	243,743	..	..	243,743	..	..	..	..
1959–60	249,530	..	..	249,530	..	..	..	..
1960–61	239,658	16,234	..	255,892	85,490	5,775	..	91,265
1961–62	161,749	..	3,398	165,147	80,268	5,974	3,398	89,640
1962–63	45,712	..	..	45,712	(*d*)47,010	..	..	47,010
1963–64	85,490	5,775	..	91,265	..	..	..	..
1964–65	80,268	..	..	80,268	..	297	..	297
1965–66	(*d*) 1,299	..	..	1,299	..	17,831	..	17,831
1966–67	..	5,974	1,159	7,133	..	..	1,159	1,159
1969–70	..	17,831	..	17,831	..	..	..	..
1974–75	..	297	..	297	..	..	..	..
1975–76	..	..	..	..	..	9,795	..	9,795
1977–78	..	9,795	..	9,795	..	..	..	..
War (1939–45) Savings and Savings Certificates—								
Seven years series	32,100	..	..	32,100	32,100	..	..	32,100
Five years series ..	16,015	..	..	16,015	16,015	..	..	16,015
War (1939–45) Savings Stamps	136	..	..	136	136	..	..	136
National Savings Stamps	19	..	..	19	19	..	..	19
War (1914–18) Savings Stamps	14	..	..	14	14	..	..	14
Peace Savings Certificates	110	..	..	110	110	..	..	110
Overdue	1,287	..	..	1,287	1,287	..	..	1,287
Half-yearly	154	..	(*e*) 1,862	2,016	154	..	(*e*) 1,862	2,016
Total	1,770,689	64,077	17,383	1,852,149	1,770,689	64,077	17,383	1,852,149

(*a*) *See* notes to table on page 829. (*b*) Includes Short-term Debt. (*c*) Includes Advance Loan Subscriptions, £23,000. (*d*) Includes Advance Loan Subscriptions, £1,004,000. (*e*) International Bank Dollar Loan.

(ii) *States.* Particulars of State Public Debt at 30th June, 1951 have been classified in the following table according to the latest, and the earliest, years of maturity.

STATE PUBLIC DEBT AT 30th JUNE, 1951 : CLASSIFIED ACCORDING TO LATEST, AND EARLIEST, YEARS OF MATURITY.

Year of Maturity.	Latest Year.				Earliest Year.			
	Maturing in—			Total.	Maturing in—			Total.
	Australia.	London.	New York.		Australia.	London.	New York.	
	£A.'000.	£ stg. '000.	£'000.	£'000.	£A.'000.	£ stg. '000.	£'000.	£'000.
Before 30th June, 1951	..	..	..	..	146,779	27,681	..	174,460
1951–52(*a*)	38,235	22,868	..	61,103	38,235	22,868	..	61,103
1952–53	19,907	11,790	..	31,697	60,766	..	4,793	65,559
1953–54	26,245	10,796	..	37,041	47,934	21,084	..	69,018
1954–55	42,305	3,205	..	45,510	1,446	20,141	..	21,587
1955–56	22,693	..	4,793	27,486	14,089	16,066	..	30,155
1956–57	19,463	..	6,498	25,961	65,926	..	6,498	72,424
1957–58	38,524	20,141	..	58,665	39,603	..	..	39,603
1958–59	39,908	21,084	..	60,992	1,668	14,055	..	15,723
1959–60	79,416	..	..	79,416	2,732	..	..	2,732
1960–61	66,917	18,575	..	85,492	111,840	..	..	111,840
1961–62	31,239	..	5,438	36,677	184,587	23,962	5,438	213,987
1962–63	60,476	..	..	60,476	106,403	12,871	..	119,274
1963–64	111,165	..	..	111,165	3,604	10,000	..	13,604
1964–65	184,755	12,870	..	197,625	1,564	13,077	..	14,641
1965–66	47,012	10,000	..	57,012	1,084	55,270	..	56,354
1966–67	2,450	23,962	7,482	33,894	2,450	..	7,482	9,932
1967–68	2,202	14,900	..	17,102	2,202	15,949	..	18,151
1968–69	2,455	..	..	2,455	2,455	..	..	2,455
1969–70	3,242	42,261	..	45,503	3,242	18,441	..	21,683
1970–71	2,369	11,546	..	13,915	2,369	..	..	2,369
1971–72	2,177	15,949	..	18,126	2,177	12,300	..	14,477
1972–73	2,711	..	..	2,711	2,711	..	..	2,711
1973–74	3,336	12,300	..	15,636	3,336	..	..	3,336
1974–75	3,737	31,518	..	35,255	3,737	..	..	3,737
1975–76	7,338	..	..	7,338	7,338	4,351	..	11,689
1976–77	1,759	..	..	1,759	1,759	..	..	1,759
1977–78	1,839	4,351	..	6,190	1,839	..	..	1,839
1978–79	1,921	..	..	1,921	1,921	..	..	1,921
1979–80	2,008	..	..	2,008	2,008	..	..	2,008
1980–81	2,098	..	..	2,098	2,098	..	..	2,098
1981–82	2,193	..	..	2,193	2,193	..	..	2,193
1982–83	1,661	..	..	1,661	1,661	..	..	1,661
Overdue	2	2	..	4	2	2	..	4
Interminable	..	1	..	1	..	1	..	1
Treasurer's option ..	..	2,397	..	2,397	..	2,397	..	2,397
Half-yearly drawings ..	9,481	..	..	9,481	9,481	..	..	9,481
Indefinite	10,372	..	..	10,372	10,372	..	..	10,372
Total	893,611	290,516	24,211	1,208,338	893,611	290,516	24,211	1,208,338

(*a*) Includes short-term debt, Australia, £2,400,000 ; London, £22,868,000.

Under the Financial Agreement Act 1944, Treasury Bills issued to meet State revenue deficits accruing between 1st July, 1928 and 30th June, 1935 were retired on 31st December, 1944. In place of those not redeemed, one per cent. debentures amounting to £43,018,000 were issued. One of these debentures will mature in each year up to 1983. Particulars of these debentures are included under their respective years of maturity in the tables above.

8. **Short-term Debt.**—(i) *Amount.* Particulars of the short-term debt (Treasury Bills and Debentures) of the Commonwealth and States in London and in Australia at 30th June, 1939 and at intervals from 30th June, 1947 to 30th June, 1951 are shown in the following table. This debt is included in the public debt as shown elsewhere.

COMMONWEALTH AND STATE SHORT-TERM DEBT.(a)

Date.	Maturing in Australia. (£ A.'000.)			Maturing in London. (£ Stg.'000.)		
	Commonwealth.	States.	Total.	Commonwealth.	States.	Total.
30th June, 1939 ..	..	50,228	50,228	4,220	23,155	27,375
" " 1947 ..	278,280	..	278,280	2,220	22,868	25,088
" " 1948 ..	208,280	..	208,280	1,970	22,868	24,838
" " 1949 ..	123,280	..	123,280	1,720	22,868	24,588
" " 1950 ..	108,280	..	108,280	1,470	22,868	24,338
30th September, 1950	133,280	..	133,280	1,470	22,868	24,338
31st December, 1950 ..	153,280	2,000	155,280	1,220	22,868	24,088
31st March, 1951 ..	198,280	2,400	200,680	1,220	22,868	24,088
30th June, 1951 ..	108,280	2,400	110,680	1,220	22,868	24,088

(a) Excludes Overdrafts and Internal Treasury Bills.

(ii) *Interest Rates.* (a) *London.* The rates of interest payable on Treasury Bills and Debentures in London during the following periods were: 1938–39 to 1940–41—minimum rate, 2 per cent., maximum rate, 2¼ per cent.; 1941–42 to 1943–44—minimum rate, 2 per cent., maximum rate, 3 per cent.; 1950–51 to 1949–50—minimum rate, 2 per cent., maximum rate, 2¼ per cent.

(b) *Australia.* The Treasury Bill rates in Australia were as follows:—1⅞ per cent. from 1st January, 1935; 1½ per cent. from 1st May, 1940; 1¼ per cent. from 1st May, 1943; 1 per cent. from 1st March, 1945; ¾ per cent. from 1st May, 1949.

9. **State and Municipal and Semi-Governmental Authority Public Debt.**—For the reasons indicated on page 827 direct comparisons of the debts of the several States should be made with caution. The table following shows, for 1938–39 and 1946–47 to 1949–50 particulars of the debts of the States and the debts due to the Public Creditor by municipal, and semi-governmental authorities in each State.

STATE AND MUNICIPAL AND SEMI-GOVERNMENTAL AUTHORITY PUBLIC DEBT.

State.	State.	Municipal. (a)	Semi-Governmental. (a)	Total.
DEBT, 1949–50. (£'000.)				
New South Wales	425,289	34,477	95,574	555,340
Victoria	217,413	12,563	86,962	316,938
Queensland	150,662	31,101	11,201	192,964
South Australia	133,174	587	11,413	145,174
Western Australia	109,550	2,187	414	112,151
Tasmania	42,721	3,531	1,057	47,309
Total 1949–50 ..	1,078,809	84,446	206,621	1,369,876
Total 1948–49 ..	1,008,884	74,201	176,561	1,259,646
Total 1947–48 ..	964,802	67,071	161,390	1,193,263
Total 1946–47 ..	926,249	61,771	151,767	1,139,787
Total 1938–39 ..	897,772	78,126	120,512	1,096,410
DEBT PER HEAD OF POPULATION, 1949–50. (£.)				
New South Wales	131.9	10.7	29.6	172.2
Victoria	98.7	5.7	39.5	143.9
Queensland	127.3	26.3	9.5	163.1
South Australia	190.2	0.8	16.3	207.3
Western Australia	196.5	3.9	0.8	201.2
Tasmania	152.9	12.6	3.8	169.3
Total 1949–50 ..	132.4	10.4	25.3	168.1
Total 1948–49 ..	128.1	9.4	22.4	159.9
Total 1947–48 ..	125.6	8.7	21.0	155.3
Total 1946–47 ..	122.7	8.2	20.1	151.0
Total 1938–39 ..	129.2	11.2	17.4	157.8

(a) Due to public creditor and excludes amounts due to Central Government. Includes Bank overdrafts.

§ 4. Commonwealth Loan Raisings.

1. **New Loans Raised, 1946–47 to 1950–51.**—Under the Financial Agreement between the Commonwealth and the States, the Commonwealth is responsible for raising all loan moneys required by both the Commonwealth and the State Governments. Details of loan transactions given in this and the next two paragraphs relate, therefore, to all loans raised for the Commonwealth and the States. The following table shows details of new loans raised in Australia by the Commonwealth during the five years 1946–47 to 1950–51. No new loans were raised in London during this period, and the only new loan raised in New York was that from the International Bank for Reconstruction and Development, amounting to $100,000,000, raised in May, 1951 and repayable half-yearly from 1st September, 1955 to 1st September, 1975. The rate of interest is 4¼ per cent. Of this loan $9,059,385 had been drawn at 30th June, 1951.

COMMONWEALTH NEW LOANS(a) RAISED IN AUSTRALIA.

Month of Raising.	Amount Invited.	Number of Subscribers.	Amount Subscribed.	Rate of Interest.	Year of Maturity.	Price of Issue.	Allocation of Proceeds.		
							Commonwealth.		
							War (1939–45) and Repatriation Services.	Other Purposes.	States.
	£'000.		£'000.			£	£'000.	£'000.	£'000.
1946–47—									
October (Second Security Loan) ..	64,020	194,592	4,823 64,944	2 3¼	1949 1955–58	100	61,267	..	8,500
December ..	5,575	(b)	5,575	3	1956	100	..	5,575	..
April (Third Security Loan)	25,000	72,154	1,457 28,365	2 3⅛	1950 1956–59	100	7,457	5,440	16,925
1947–48—									
October (Fourth Security Loan) ..	48,030	95,327	61,223	3⅛	1956–59	100	21,611	13,012	26,600
April (Fifth Security Loan)	35,000	87,234	43,294	3⅛	1957–60	100	6,621	7,645	29,028
1948–49—									
September (Sixth Security Loan) ..	15,000	84,472	15,052	3⅛	1962	100	52	..	15,000
March (Seventh Security Loan) ..	43,239	54,860	11,982 49,842	2 3⅛	1952 1960–63	100	8,899	28,780	24,145
1949–50—									
September (Eighth Security Loan) ..	25,912	63,504	8,035 37,132	2 3⅛	1953 1960–63	100	..	..	45,167
March (Ninth Security Loan) ..	40,875	46,066	8,433 52,245	2 3⅛	1953 1961–64	100	11,887	17,215	31,576
1950–51—									
August (Tenth Security Loan) ..	12,911	46,304	6,531 41,775	2 3⅛	1953 1961–64	100	1,306	..	47,000
November (Eleventh Security Loan) ..	21,253	32,160	1,976 28,024	2 3⅛	1953 1961–64	100	..	..	30,000
May (Twelfth Security Loan) ..	40,000	46,189	3,275 45,999	2 3⅛	1954 1962–65	100 99	336	..	48,938

(a) Includes loans raised for redemption of Treasury Bills, but excludes conversion loans, loans for redemption of debt maturing in London, short-term debt and certain miscellaneous debt (*see* below). (b) Special issue (taken up by Commonwealth Bank of Australia).

In addition to the new loans raised shown in the foregoing table, and the redemption and conversion loans shown in the following table, there were other miscellaneous debt operations during 1950–51, viz. :—National Savings Stamps, decrease of £1,000 ; Savings Certificates and War Savings Certificates (Five and Seven Years' Series), decrease of £6,910,000 ; War Savings and Savings Stamps, decrease of £4,000 ; "Over the Counter Sales" (small amounts borrowed by the States by virtue of certain statutory rights), £2,482,000. Advance loan subscriptions in hand decreased from £26,776,000 at the end of 1949–50 to £1,026,000 at the end of 1950–51.

2. **Conversion and Redemption Loans, 1946-47 to 1950-51.**—(i) *Australia.* Particulars of conversion loans raised in Australia during the five years 1946–47 to 1950–51 are given in the following table :—

COMMONWEALTH CONVERSION AND REDEMPTION LOANS RAISED IN AUSTRALIA.

Month of Raising.	Old Loan.		New Loan.				Reduction in Annual Liability for Interest.
	Amount.	Rate of Interest.	Amount.	Rate of Interest.	Price of Issue.	Year of Maturity.	
	£A.'000.	%	£A.'000.	%	£		£A.'000.
1946-47—							
August	13,548	2½	4,593 8,955	2 3¼	100 100	1949 1955–58	−44
October	17,679	2½	5,260 12,419	2 3¼	100 100	1949 1955–58	−67
1947–48—							
August	6,422 21,689	3⅞ 4	28,111	3⅛	100	1956–59	238
October	19,015	2½	19,015	3⅛	100	1956–59	−119
December	6,000	2½	6,000	3⅛	100	1956–59	−38
1948–49—							
September	55,231 14,168 7,581 8,058	2½ 3 3¼ 3⅞	85,038	3⅛	100	1962	−293
March	17,291 59,470	2 2½	33,577 43,184	2 3⅛	100 100	1952 1960–63	−188
1949–50—							
September	15,262 50,268 12,104 11,455	2 2½ 3⅜ 3¾	29,609 59,480	2 3⅛	100 100	1953 1960–63	−51
March	4,125	2	2,235 1,890	2 3⅛	100 100	1953 1961–64	−21
1950–51—							
August	9,285 27,817	3⅝ 4	9,715 27,387	2 3⅛	100 100	1953 1961–64	400
November	116,831	4	14,698 102,133	2 3⅛	100 100	1953 1961–64	1,187

NOTE.—Minus sign (−) indicates an increase in the annual liability for interest.

(ii) *London.* The following table shows particulars of loans raised in Australia and London during the five years 1946–47 to 1950–51 for the purpose of redeeming and converting London loans.

COMMONWEALTH LOANS RAISED FOR THE CONVERSION AND REDEMPTION OF LOANS MATURING IN LONDON.

Month of Raising.	Old Loan.		New Loans.					Reduction in Annual Liability for Interest and Exchange. (a)
	Amount.	Rate of Interest.	Amount raised in— Australia.	Amount raised in— London.	Rate of Interest.	Price of Issue.	Year of Maturity.	
	£Stg. '000.	%	£A.'000.	£Stg. '000.	%	£		£A.'000.
1946–47—								
July	16,075	3	..	16,075	2¾	100	1967–71	50
January	4,254	3	2,667 2,667	.. ..	2 3⅛	100 100	1950 1956–59	23
January	1,418 17,098	3½ 4	..	18,516	2½	100	1970–75	339
1947–48—								
January	15,870	5½	.. 3,761	12,870 ..	3 3⅛	98½ 100	1963–65 1960	443
1948–49—								
August	13,988	4	.. 5,000	10,000 ..	3 3⅛	100 100	1964–66 1957–60	169
January	5,170 14,775	3 3¾	.. 6,200	15,000 ..	3 3⅛	100 100	1965–67 1962	131
January	1,959 16,027	3¾ 4	.. 6,269	12,986 ..	3 3⅛	100 100	1972–74 1960–63	212
March	19,500	3¾	.. 5,642	15,000 ..	3 3⅛	100 100	1975–77 1960–63	176
1949–50—								
October	5,583	3½	7,000	..	3⅛	100	1960–63	26
1950–51								
July	9,400	3½	11,785	..	3⅛	100	1,964	44

(a) No account has been taken of cost of issuing the conversion loans at a discount. Exchange calculated at £A.125.375 = £ stg. 100.

(iii) *New York.* During 1946–47 the Queensland 6 per cent. loan in New York became due for redemption and the option of redeeming other loans bearing interest at 5 per cent. and 4½ per cent. occurred. In order to take advantage of lower rates of interest, the Commonwealth gave notice that it intended to redeem the latter loans and four loans totalling $128,000,000 were raised to provide the money for redemption. Particulars of these loans are given in the following table. These operations were the first conversion operations undertaken in New York.

COMMONWEALTH LOANS RAISED IN NEW YORK FOR REDEMPTION OF EXISTING LOANS.

Month of Raising.	Old Loan.		New Loan.				Reduction in Annual Liability for Interest and Exchange.(a)	
	Amount.	Rate of Interest.	Amount.	Rate of Interest.	Price of Issue.	Year of Maturity.	United States of America Currency.	Australian Currency. (b)
	$'000.	%	$'000.	%	£		$'000.	£A.'000.
1946–47—								
August	18,329	5	20,000	3¼	100	1956	266	83
December	17,513 7,851	5 6	25,000	3½	98½	1966	472	147
February	44,626	4½	45,000	3⅜	99	1962	489	153
June	35,640	5	19,000 19,000	3¼ 3½	97½ 97½	1957 1967	500	156

(a) No account has been taken of the cost of issuing the new loans at a discount. (b) Converted at selling rate of exchange on 30th June, 1947—$3.2002 = £A1.

3. **International Bank for Reconstruction and Development Loan.**—To provide dollar funds for the purchase of certain types of capital equipment and plant which were indispensable to the furtherance of development in Australia and which could only be obtained in the United States of America and Canada, the Commonwealth Government, in August, 1950, arranged a loan of $100,000,000 from the International Bank for Reconstruction and Development. The loan is for a term of 25 years with interest at 4¼ per cent. per annum on the amount of the loan withdrawn and outstanding from time to time. In addition there is a commitment charge of ¾ per cent. per annum on the amount of the loan not withdrawn from time to time. Repayment of the loan is to be made in half-yearly instalments commencing on 1st September, 1955. The last instalment is payable on 1st September, 1975. Up to 30th June, 1951, $9,050,385 had been drawn on the loan.

The capital equipment and plant to be purchased from the proceeds of the loan will be made available to Commonwealth and State Government departments and agencies and private firms and individuals for use in the development of Australian resources. Subject to a special import licence being obtained, the goods will be imported and distributed through normal channels and payment made through the Australian banking system. Periodically, schedules of dollar payments for goods imported against loan licences are to be submitted to the International Bank for Reconstruction and Development. These schedules will form the basis for periodical drawings by the Commonwealth against the loan. The amounts drawn will be paid to the Commonwealth Bank to replace the dollar funds used in making the purchases. In return, the Commonwealth Government will receive Australian currency from the Commonwealth Bank. This will be paid to the Commonwealth National Debt Sinking Fund, out of which the loan will subsequently be redeemed.

4. **Summary of Loan Transactions, 1941–42 to 1950–51.**—**The following table contains a summary of loan transactions on behalf of the Commonwealth and State Governments during the last ten years.**

COMMONWEALTH LOAN TRANSACTIONS: SUMMARY.

Year ended 30th June.	New Loans.				Net Increase in Short-term Debt in—			Loans Raised for Conversion or Redemption of Existing Debt Maturing in—			
	Public Loans (a) Raised in—		Net increase of Miscellaneous Debt in— (b)		Australia.		London.	Australia.	London.		New York.
									Raised in—		
	Australia.	New York.	Australia.	London.	Public.	Internal.			Australia.	London.	
	£A.'000.	$'000.	£A.'000.	£stg. '000.	£A.'000.	£A.'000.	£stg. '000.	£A. '000.	£A. '000.	£stg. '000.	$'000.
1942	122,880	..	14,478	..	78,391	2,296	1,474	65,985	..	30,011	..
1943	184,692	..	31,304	254	172,886	8,500	− 1,399	21,783	..	16,451	..
1944	276,949	..	− 6,952	− 12,007	77,905	42,718	− 1,112	12,252	5,631	..	..
1945	264,245	..	14,218	..	− 32,745	32,104	− 250	40,666	12,650	..	..
1946	172,817	..	2,390	− 347	− 330	..	− 250	21,157	43,017	74,055	..
1947	105,164	..	8,086	..	− 65,000	25,000	− 250	31,227	5,334	34,591	128,000
1948	104,518	..	1,719	..	− 70,000	20,100	− 250	53,126	3,761	12,870	..
1949	76,876	..	9,202	..	− 85,000	41,400	− 250	161,799	23,111	52,986	..
1950	105,845	..	4,788	..	− 15,000	19,000	− 250	93,213	7,000	..	..
1951	127,580	(c) 9,059	− 30,183	..	2,400	87,000	− 250	153,933	11,785	..	..

(a) Includes loans raised for redemption of Treasury Bills. No new loans were raised in London during this period. (b) "Over the Counter Sales" and net increase in debt on account of Citizens' National Emergency Loans, War Savings and Savings Certificates and Stamps, National Savings Bonds and Stamps, and Advance Loan Subscriptions. Debt in London includes Citizens' National Emergency Loans and debt to United Kingdom Government. (c) Amount drawn of $100,000,000 loan from International Bank for Reconstruction and Development.

NOTE.—Minus sign (−) denotes a decrease in debt.

§ 5. National Debt Sinking Fund.

1. **Commonwealth Public Debt.**—Particulars relating to the creation of sinking funds are included in issues of the Official Year Book prior to No. 23.

The old sinking funds were merged in the National Debt Sinking Fund on 11th August, 1923. Particulars of receipts and expenditure of the Commonwealth Account for the years 1938–39 and 1946–47 to 1950–51 were as follows :—

NATIONAL DEBT SINKING FUND : COMMONWEALTH ACCOUNT.
(£'000.)

Items.	1938–39.	1946–47.	1947–48.	1948–49.	1949–50.	1950–51.
Receipts—						
From Consolidated Revenue	3,918	14,443	15,456	16,083	16,146	17,225
Loans and Advances Repaid	17	360	454	766	580	4,381
War Service Homes Money Repaid	629	1,043	1,115	1,357	2,156	3,147
Half Net Profit Commonwealth Bank	321	938	965	1,082	1,116	1,140
Reparation Moneys ..	..	..	..	..	500	..
Interest on Investments ..	32	56	31	42	104	70
Loan (International Bank for Reconstruction and Development) Act ..	..	..	..	..	..	4,044
Other Contributions ..	14	12	12	12	12	12
Total Receipts ..	4,931	16,852	18,033	19,342	20,614	30,019
Expenditure—						
Securities Repurchased and Redeemed in—						
Australia	4,230	13,864	23,281	3,917	26,916	28,762
London	608	313	370	313	610	1,688
New York	214	..	91	79	118	449
Total Expenditure ..	5,052	14,177	23,742	4,309	27,644	30,899
Balance at 30th June ..	1,131	8,583	2,874	17,907	10,877	9,997
Face Value of Securities Repurchased and Redeemed in—						
Australia	4,199	13,848	23,201	3,900	26,872	28,828
London	498	250	294	250	496	1,409
New York	167	..	66	57	68	210
Total Face Value ..	4,864	14,098	23,561	4,207	27,436	30,447

2. **State Public Debt.**—(i) *States*, 1950–51. Prior to the passing of the Financial Agreement Act 1928, the practice by the States of providing sinking funds had been consistently followed in Western Australia only. This Act contains provisions for the establishment of a sinking fund on States' debts (see p. 821). Particulars of the transactions of the National Debt Sinking Fund (States' Account) for each State during the year 1950–51 are shown on the following page.

NATIONAL DEBT SINKING FUND: STATE ACCOUNT, 1950–51.

(£'000.)

Items.	N.S.W.	Vic.	Q'land.	S. Aust.	W.Aust.	Tas.	Total.
Receipts—							
Contributions under Financial Agreement—							
Commonwealth	877	452	294	276	245	97	2,241
States	3,582	2,026	1,375	1,174	916	345	9,418
Interest from States on cancelled Securities	8	7	3	3	3	1	25
Special Contributions by States	106	32	..	2	1	6	147
Interest on Investments, etc.	4	1	1	1	1	..	8
Total Receipts	4,577	2,518	1,673	1,456	1,166	449	11,839
Expenditure—							
Securities Repurchased and Redeemed in—							
Australia	3,789	2,345	1,112	998	264	369	8,877
London	3,091	294	477	433	953	59	5,307
New York	261	62	98	24	12	5	462
Total Expenditure	7,141	2,701	1,687	1,455	1,229	433	14,646
Balance at 30th June, 1951	68	73	51	56	8	29	285
Face Value of Securities Repurchased and Redeemed in—							
Australia	3,780	2,340	1,110	997	264	368	8,859
London	2,482	244	398	363	809	49	4,345
New York	129	31	49	12	6	2	229
Total Face Value	6,391	2,615	1,557	1,372	1,079	419	13,433

(ii) *All States*, 1938–39 *and* 1946–47 *to* 1950–51. The following table is a summary of the transactions of the National Debt Sinking Fund (State Account) for the years 1938–39 and 1946–47 to 1950–51 :—

NATIONAL DEBT SINKING FUND: STATE ACCOUNT.

(£'000.)

Items.	1938–39.	1946–47.	1947–48.	1948–49.	1949–50.	1950–51.
Receipts—						
Contributions under Financial Agreement—						
Commonwealth	1,478	1,636	1,732	1,851	2,006	2,241
States	4,327	7,198	7,653	8,109	8,747	9,418
Interest from States on cancelled securities	15	27	16	29	27	25
Commonwealth Contributions under Federal Aids Roads and Works Act	69	69	68	20	..	..
Special Contributions by States	61	105	137	174	142	147
Interest on Investments, etc.	56	63	19	11	6	8
Total Receipts	6,006	9,098	9,625	10,194	10,928	11,839
Expenditure—						
Securities Repurchased and Redeemed in—						
Australia	4,008	8,916	8,950	8,337	6,509	8,877
London	1,722	40	2,902	2,393	1,449	5,307
New York	347	874	444	256	393	462
Total Expenditure	6,077	9,830	12,296	10,986	8,351	14,646
Balance at 30th June	1,885	3,978	1,307	515	3,092	285
Face Value of Securities Repurchased and Redeemed in—						
Australia	3,996	8,905	8,930	8,292	6,480	8,859
London	1,561	33	2,309	1,909	1,182	4,345
New York	285	649	314	185	223	229
Total Face Value	5,842	9,587	11,553	10,386	7,885	13,433

Particulars of the Financial Agreement between the Commonwealth and the States and of the provisions regarding Sinking Fund contributions are shown on pages 816 and 817 of this issue and in the *Finance Bulletins* issued by this Bureau.

E. TAXES ON INCOME.

NOTE.—The following section was written prior to the introduction of the 1952–53 Commonwealth Budget, when certain changes in income taxes were made. For a description of the taxes inclusive of these changes *see* Appendix to this volume.

1. **General.**—A description of the development of income taxes in Australia appeared in Official Year Book, No. 35, p. 926. Since July, 1943, the Commonwealth, under the uniform tax arrangement, has been the only authority imposing taxes on income.

2. **Present Taxes.**—Commencing with 1950–51 the two taxes on incomes of individuals (Income Tax and Social Services Contribution) were combined into a single tax known as Income Tax and Social Services Contribution. The several taxes on companies were continued in 1950–51, but in 1951–52 the super tax and tax on the undistributed income of public companies were discontinued. However in the latter year provision was made for an additional tax on the income of certain public companies and an advance payment of tax for 1952–53.

3. **Assessable Income.**—Income taxes in Australia are levied, primarily, on all income derived from Australian sources by any person, rather than on income derived from all sources by Australian residents. Thus a non-resident is taxed on income derived in Australia, while a resident is, in general, not taxed on income other than dividends derived from overseas (provided the income is taxed in the country in which it is derived).

Certain types of Australian income are exempt from tax in Australia, the most important being income from gold-mining and a small amount of tax-free interest on Commonwealth Government securities. No amount is included in assessable income on account of a house occupied by its owner. Profits derived from the sale of property are not assessable income if such property was not purchased with a view to resale at a profit. Commencing with the income year 1951–52, income received from a scholarship, bursary or other educational allowance is exempt. Pay and allowances earned by a member of the Defence Forces while serving in Korea after 26th June, 1950 and Malaya after 28th June, 1950 is also exempt.

Assessable income is divided into two main groups—personal exertion and property. Personal exertion income includes all wage, salary, business and professional incomes, while property income includes all rents, dividends and interest. A further tax on property income is imposed on individuals in all cases where the total taxable income exceeds £400 and the amount of property income exceeds £100. No distinction is made for companies.

Expenses incurred in earning income, certain subscriptions to business associations and trade union dues, are allowable deductions. Losses incurred in previous years may be carried forward as a deduction.

Because of uncongenial climatic conditions, isolation and high cost of living, taxpayers living in certain areas are allowed an additional deduction. Two zones have been prescribed, and the allowances are Zone A, £120 and Zone B, £20.

Income Tax and Social Services Contribution is levied on the taxable income remaining after making these deductions and the concessional deductions to which reference is made in paragraph 5 following.

4. **Taxes on Individuals.**—Income Tax and Social Services Contribution is payable by all persons without dependants whose taxable income exceeds £104 per annum. Persons with dependants are exempt from Income Tax and Social Services Contribution if their annual income does not exceed the minimum as set out in paragraph 9 following. Commencing with the 1951–52 income year, an aged person (i.e. a man who has attained the age of 65 years or a woman who has attained the age of 60 years) is exempt from Income Tax and Social Services Contribution if the net income (i.e. gross income less expenses of earning that income) does not exceed £234 or, if he or she contributes to the maintenance of a spouse, £468.

5. **Concessional Deductions.**—By a revision made in the assessment of income taxes on individuals for the income year 1950–51, concessional allowances for dependants, medical expenses, life assurance and superannuation contributions, etc., made by way of rebates of Income Tax or by way of concessional rates for Social Services Contribution were replaced by concessions by way of deductions from income. The maximum deduction allowed for each dependant, parent or a housekeeper employed by the taxpayer is shown in the following table :—

CONCESSIONAL DEDUCTIONS FOR DEPENDANTS, ETC.

(£.)

Dependant, etc. (Resident).	Income Years 1950–51 and 1951–52.
Spouse	104
Daughter-housekeeper(*a*)	104
Housekeeper(*a*) having care of taxpayer's children under 16 years of age	104
Parent	104
First child under 16 years of age	78
Other children under 16 years of age	52
Invalid child, step-child, brother or sister over 16 years of age ..	78
Child 16 to 21 years receiving full-time education	78

(*a*) Of a widower or widow. These deductions are allowed only if the dependant or parent is a resident of Australia. If the dependant is not wholly maintained by the taxpayer or is maintained for part only of the year a partial deduction is allowed.

Medical expenses paid by a taxpayer who is a resident, in respect of himself, a dependant, or other child under 21 years of age, up to £100 for each person, are allowed as a concessional deduction. Medical expenses include payments made to a legally qualified medical practitioner, nurse or chemist, or a hospital, in respect of an illness or operation, payments for dental services not exceeding £20 for any one person, payment for therapeutic treatment and eye tests, expenditure on medical or surgical appliances, artificial limbs or eyes, hearing aids and spectacles, and the remuneration of an attendant of a person who is blind or confined to bed or invalid chair.

Payments of life, etc., insurance premiums and contributions to superannuation and similar funds and friendly societies, not exceeding an aggregate of £200, and funeral expenses of a dependant not exceeding £30 are allowed as concessional deductions if the taxpayer is a resident.

In addition to concessional deductions, all taxpayers (residents and non-residents) are allowed a deduction from income of rates and taxes on land which are annually assessed, of gifts to charitable, benevolent or patriotic funds and one-third of amounts paid as calls to certain mining, forestry and oil-prospecting companies.

6. **Lodgment of Returns and Assessment of Tax.**—All persons with incomes in excess of £104 are required to lodge returns by the 31st July each year (31st August for business incomes). Income Tax and Social Services Contribution payable is assessed, and assessment notices showing the amount payable are issued during the year following the year of income (in most cases from September to June following the lodgment of the return). The approximate amount payable, however, has already been collected during the income year—from employees by deductions from wages and from non-employees by a provisional tax. The amount shown on the assessment notice is therefore adjusted against the amount already collected and any difference either collected or refunded.

7. **Deductions from Wages and Salaries.**—Employers are required to deduct tax and contribution from each payment of wages and salary to an employee at the appropriate rate in accordance with a deduction scale. This scale shows the amount to be deducted according to the number of dependants the employee has, and makes an average allowance for other concessional deductions.

Under the group scheme of deduction, which covers most employers of over ten persons, the amount deducted is remitted to the Taxation Department, and after 30th June each year each employee is given a group certificate by his employer showing the amount of deductions made during the year. The employee then uses the group certificate for that year to meet, in full or in part, the assessment on that year's income when it is received.

Under the stamp scheme, used by small employers, a stamp deduction sheet in two parts is used. Each four weeks the employer purchases stamps (also in two parts) for the amount of the deductions made each pay day and sticks one part on each half of the sheet. At the end of the year the employer gives the employee one half of the sheet and sends the other half to the Taxation Department. The employee's half is then used in the same way as a group certificate.

8. **Provisional Tax.**—For non-employees collection of tax and contribution for the current year is made at the same time as collection and assessment for the previous year is adjusted. The notice of assessment shows an amount of provisional tax and contribution for the current year. This provisional amount is an approximation to the tax and contribution which will be payable after the return of income for the current year has been lodged. It is ascertained by assuming that the income of the current year will be the same as that for the previous year (for which a return has already been lodged) but the rates for the current year are applied to the income and not the rates for the year in which it was derived. The assessment notice shows the provisional tax and contribution paid in the previous year as a credit against the tax and contribution assessed on the basis of the return for that year.

Employees with more than £50 income from sources other than wages and salaries are also required to pay provisional tax in respect of that income.

9. **Effective Exemptions from Tax.**—For income years 1950–51 and 1951–52 resident taxpayers without dependants were exempt from Income Tax and Social Services Contribution if their income did not exceed £104. The effect of the deductions for dependants was to exempt taxpayers up to the incomes shown below in the years 1950–51 and 1951–52. For comparison, the effect of concessions for dependants for the years 1948–49 and 1949–50 are also shown.

RESIDENT TAXPAYERS : EFFECTIVE EXEMPTIONS FROM TAX.

(£.)

Taxpayer with—	Social Services Contribution—1948–49 and 1949–50 Income.	Income Tax and Social Services Contribution—1950–51 and 1951–52 Income.
No dependants	104	104
Wife	200	208
„ and one child	283	286
„ „ two children	317	338
„ „ three children	350	390
„ „ four children	400	442

10. **Rates of Income Tax and Social Services Contribution on Individuals.**—The following table shows the income tax and social services contribution on 1950–51 incomes.

INCOME TAX AND SOCIAL SERVICES CONTRIBUTION—INDIVIDUALS, 1950-51 INCOME: BASIC TAX AND CONTRIBUTION.

Total Taxable Income.		Column 3.			Column 4.	
Column 1. Not less than—	Column 2. Not more than—	Tax and contribution on amount set out in Column 1.			Tax and Contribution on Remainder of Taxable Income	
£	£	£	s.	d.		£
Nil	100	Nil			plus 1d. in each £1	
100	150	0	8	4	„ 6d. in each £1 in excess of	100
150	200	1	13	4	„ 11d. „ „ „	150
200	250	3	19	2	„ 16d. „ „ „	200
250	300	7	5	10	„ 21d. „ „ „	250
300	400	11	13	4	„ 26d. „ „ „	300
400	500	22	10	0	„ 32d. „ „ „	400
500	600	35	16	8	„ 38d. „ „ „	500
600	700	51	13	4	„ 44d. „ „ „	600
700	800	70	0	0	„ 48d. „ „ „	700
800	900	90	0	0	„ 52d. „ „ „	800
900	1,000	111	13	4	„ 56d. „ „ „	900
1,000	1,200	135	0	0	„ 64d. „ „ „	1,000
1,200	1,400	188	6	8	„ 72d. „ „ „	1,200
1,400	1,600	248	6	8	„ 80d. „ „ „	1,400
1,600	1,800	315	0	0	„ 88d. „ „ „	1,600
1,800	2,000	388	6	8	„ 96d. „ „ „	1,800
2,000	2,400	468	6	8	„ 104d. „ „ „	2,000
2,400	2,800	641	13	4	„ 112d. „ „ „	2,400
2,800	3,200	828	6	8	„ 120d. „ „ „	2,800
3,200	3,600	1,028	6	8	„ 128d. „ „ „	3,200
3,600	4,000	1,241	13	4	„ 136d. „ „ „	3,600
4,000	4,400	1,468	6	8	„ 144d. „ „ „	4,000
4,400	5,000	1,708	6	8	„ 152d. „ „ „	4,400
5,000	6,000	2,088	6	8	„ 160d. „ „ „	5,000
6,000	8,000	2,755	0	0	„ 168d. „ „ „	6,000
8,000	10,000	4,155	0	0	„ 176d. „ „ „	8,000
10,000	upwards	5,621	13	4	„ 180d. „ „ „	10,000

If the taxable income exceeds £400 and includes income from property, the amount of the income from property is subject to the further tax shown in the following table.

FURTHER TAX ON PROPERTY INCOME.

Taxable Income from Property.		Column 3.			Column 4.	
Column 1. Not less than—	Column 2. Not more than—	Further Tax and Contribution on Taxable Income shown in Column 1.			Further Tax and Contribution on Remainder of Taxable Income from Property.	
£	£	£	s.	d.		£
Nil	100	Nil			Nil	
100	1,000	Nil			plus 8d. on each £1 in excess of	100
1,000	4,000	30	0	0	„ 16d. „ „ „	1,000
4,000	6,000	230	0	0	„ 8d. „ „ „	4,000
6,000	10,000	296	13	4	„ 4d. „ „ „	6,000
10,000	upwards	363	6	8	(No rate on excess over £10,000)	

If the total taxable income does not exceed £1,000, the further tax on property income cannot exceed twelve pence for every £1 by which the total taxable income exceeds £400. The application of this provision is illustrated by the following example based on an income of £600 derived wholly from property:—

Further tax on £600 property income—

	£	s.	d.
By applying scale rate £500 at 8d. in the £1 ..	16	13	4
By applying limiting provision £200 at 1s. in the £1	10	0	0

These rates were not changed for 1951–52 income year, but an additional tax and contribution of 10 per cent. of the tax payable prior to allowance of any rebate or credit was imposed.

Prior to the 1951–52 income year the rate of Income Tax and Social Services Contribution for farmers and pastoralists was determined by the average taxable income of the five years up to the current year and this rate was applied to the taxable income of the current year. From the income year 1951–52 the application of the averaging provisions was limited to that part of the taxable income which did not exceed £4,000 and provision was made for a taxpayer to elect not to have the averaging provisions applied to his assessment for any income year and subsequent years. Such an election once made is irrevocable.

Interest on Commonwealth Loans issued prior to 1st January, 1940 is subject to the condition that it shall not be taxed at rates higher than those for 1930–31. Interest on Commonwealth Loans issued after 1st January, 1940 and interest on certain State semi-governmental loans issued free of State income tax receive a rebate of 2s. in the £1.

The minimum amount of Income Tax and Social Services Contribution payable is 10s. and the amounts payable and rebates are calculated to the nearest shilling.

11. **Taxes on Sample Individual Incomes.**—The following table shows the Income Tax and Social Services Contribution payable by taxpayers with various incomes and numbers of dependants on income derived in 1949–50, 1950–51 and in 1951–52 :—

COMMONWEALTH TAXES ON INCOME.

(£.)

Income.	1949–50 Income Year.			1950–51 Income Year.	1951–52 Income Year.
	Income Tax.	Social Services Contribution.	Total.	Income Tax and Social Services Contribution.	Income Tax and Social Services Contribution.
INCOME FROM PERSONAL EXERTION.—TAXPAYER WITH NO DEPENDANTS.					
150	..	3.05	3.05	1.65	1.80
200	..	5.60	5.60	3.95	4.35
250	..	9.00	9.00	7.30	8.05
300	..	13.10	13.10	11.65	12.80
350	..	18.05	18.05	17.10	18.80
400	..	23.75	23.75	22.50	24.75
500	..	37.50	37.50	35.85	39.45
600	8.50	45.00	53.50	51.65	56.80
800	31.50	60.00	91.50	90.00	99.00
1,000	62.50	75.00	137.50	135.00	148.50
1,500	170.85	112.50	283.35	281.65	309.80
2,000	320.85	150.00	470.85	468.35	515.20
3,000	704.15	225.00	929.15	928.35	1,021.20
5,000	1,720.85	375.00	2,095.85	2,088.35	2,297.20
INCOME FROM PERSONAL EXERTION.—TAXPAYER WITH DEPENDENT WIFE.					
150	..	..	..	..	..
200	..	..	..	..	..
250	..	1.55	1.55	1.55	1.70
300	..	4.90	4.90	3.75	4.10
350	..	9.85	9.85	7.00	7.70
400	..	14.35	14.35	11.30	12.45
500	..	25.80	25.80	22.05	24.25
600	..	40.30	40.30	35.30	38.85
800	14.35	60.00	74.35	69.25	76.15
1,000	41.90	75.00	116.90	110.80	121.90
1,500	142.50	112.50	255.00	247.15	271.85
2,000	285.55	150.00	435.55	426.75	469.40
3,000	659.15	225.00	884.15	876.35	964.00
5,000	1,675.85	375.00	2,050.85	2,022.45	2,224.70

COMMONWEALTH TAXES ON INCOME—*continued.*

(£)

Income.	1949–50 Income Year.			1950–51 Income Year.	1951–52 Income Year.
	Income Tax.	Social Services Contribution.	Total.	Income Tax and Social Services Contribution.	Income Tax and Social Services Contribution.
INCOME FROM PERSONAL EXERTION.—TAXPAYER WITH DEPENDENT WIFE AND ONE CHILD.					
150	..	..	..	..	..
200	..	..	..	..	..
250	..	..	..	..	..
300	..	0.95	0.95	0.85	0.95
350	..	4.35	4.35	2.50	2.75
400	..	8.10	8.10	5.15	5.65
500	..	17.95	17.95	13.60	14.95
600	..	30.95	30.95	24.90	27.40
800	2.90	60.00	62.90	54.95	60.45
1,000	28.15	75.00	103.15	93.90	103.30
1,500	123.65	112.50	236.15	223.75	246.10
2,000	262.00	150.00	412.00	395.55	435.10
3,000	628.20	225.00	853.20	837.35	921.10
5,000	1,633.95	375.00	2,008.95	1,973.05	2,170.35
INCOME FROM PERSONAL EXERTION.—TAXPAYER WITH DEPENDENT WIFE AND TWO CHILDREN.					
150	..	..	..	..	..
200	..	..	..	..	..
250	..	..	..	..	..
300	..	..	..	..	..
350	..	2.20	2.20	0.80	0.90
400	..	5.00	5.00	2.40	2.65
500	..	14.05	14.05	8.70	9.55
600	..	26.25	26.25	18.80	20.70
800	..	60.00	60.00	46.30	50.90
1,000	21.25	75.00	96.25	83.20	91.50
1,500	114.20	112.50	226.70	208.15	228.90
2,000	250.25	150.00	400.25	375.85	413.45
3,000	613.20	225.00	838.20	812.45	893.70
5,000	1,618.95	375.00	1,993.95	1,940.15	2,134.15
INCOME FROM PROPERTY.—TAXPAYER WITH NO DEPENDANTS.					
150	..	3.05	3.05	1.65	1.80
200	..	5.60	5.60	3.95	4.35
250	..	9.00	9.00	7.30	8.05
300	..	13.10	13.10	11.65	12.80
350	..	18.05	18.05	17.10	18.80
400	1.65	23.75	25.40	22.50	24.75
500	5.30	37.50	42.80	40.85	44.95
600	18.25	45.00	63.25	61.65	67.80
800	51.55	60.00	111.55	110.00	121.00
1,000	94.90	75.00	169.90	165.00	181.50
1,500	238.65	112.50	351.15	345.00	379.50
2,000	428.25	150.00	578.25	565.00	621.50
3,000	886.55	225.00	1,111.55	1,091.70	1,200.85
5,000	2,003.25	375.00	2,378.25	2,351.70	2,586.85

12. **Company Income Taxes.**—(i) *General.* For taxation purposes, companies are divided into two main groups—public companies and private companies. A private company is defined as a company in which all the issued shares are held by not more than twenty persons or which is under the control of not more than seven persons, and which is not a company in which the public are substantially interested or a subsidiary of a public company. Ordinary Income Tax and Social Services Contribution is imposed on both groups of companies, but other taxes on companies are imposed according as to whether a company is public or private.

(ii) *Public Companies.* (*a*) *Ordinary Income Tax and Social Services Contribution.* The income of companies is assessed for Income Tax and Social Services Contribution on the same principles as for individuals. Dividends received are assessable income both for companies and individuals, but resident companies receive a rebate at the average rate on the amount of dividends included in the taxable income. This rebate is not allowed to non-resident companies. For the year 1950–51 the rate of ordinary Income Tax and Social Services Contribution was 5s. in the £1 on the first £5,000 of taxable income and 6s. in the £1 on the remainder. For mutual life assurance companies the rate was 4s. in the £1 on the first £5,000 of taxable income and 5s. in the £1 on the remainder. For the year 1951–52 the rate for companies other than life assurance companies was 7s. in the £1 on all taxable income. For mutual life assurance companies the rate was 6s. in the £1 on all taxable income and for other life assurance companies the rate was 6s. in the £1 on mutual income and 7s. in the £1 on other income. The rate on Commonwealth Loan Interest subject to 1930–31 rates was 1s. 4d. in the £1.

(*b*) *Super Tax.* In 1950–51 a Super Tax of 1s. in the £1 on the excess of the taxable income over £5,000 was imposed. All companies received a rebate of 1s. in the £1 on the amount of dividends (from companies which had already paid super tax) included in super tax income. This super tax was not levied in 1951–52.

Commonwealth Loan Interest subject only to 1930–31 rates of tax was excluded from super tax income since the full 1930–31 rate of 1s. 4d. in the £1 was already paid as ordinary Income Tax and Social Services Contribution.

(*c*) *Undistributed Income Tax.* From 1940–41 to 1950–51 a tax was imposed at the rate of 2s. in the £1 on the undistributed income of a public company. The undistributed income was the taxable income less :—

(*a*) Income Tax and Social Service Contribution, Super Tax, and War-time (Company) Tax, and tax paid outside Australia on the taxable income;
(*b*) dividends paid out of the taxable income before the expiration of six months (nine months if the company is a non-resident) after the close of the year of income;
(*c*) the net loss incurred in carrying on the company's business outside Australia; and
(*d*) the portion of Commonwealth Loan Interest subject to 1930–31 rates remaining in the undistributed income.

Mutual life assurance companies and non-resident companies not carrying on business in Australia were exempt from the tax.

(*d*) *Additional Income Tax and Social Services Contribution.* For 1951–52 an additional tax of 2s. in the £1 was imposed on taxable income. This additional tax did not apply to income of non-resident companies from dividends, the income of mutual life assurance companies or the mutual income of other life assurance companies and the income of co-operative companies and companies not carried on for the profit of individual members.

(iii) *Private Companies.* For 1950–51 the rates of ordinary Income Tax and Social Services Contribution payable by a private company were the same as those payable by a public company. For 1951–52 the rates were 5s. in the £1 on the first £5,000 of taxable income and 7s. in the £1 on the remainder of the taxable income. Private companies were not liable to the additional Income Tax and Social Services Contribution and were not liable for Super Tax or the normal Undistributed Income Tax. However, an additional tax on the undistributed income was imposed, this tax being based on the close relationship between a private company and a partnership.

The undistributed income was calculated in approximately the same way as it was for a public company (*see* above) but, instead of a flat rate of 2s. in the £1 being imposed, the additional Income Tax and Social Services Contribution which would have been payable by the shareholders, if all the income had been distributed, was calculated, and this amount was charged to the company as additional tax on undistributed income. In this way the shareholders of a private company were required to pay approximately the same tax as if they were a partnership or sole traders.

(iv) *Advance Payment of Income Tax and Social Services Contribution.* In 1951–52 all companies were required to make an advance payment of part of the Income Tax and Social Services Contribution that would be assessed in 1952–53. The amount of this advance payment was fixed at 10 per cent. of the Income Tax and Social Services Contribution assessed for 1951–52 (other than tax on the undistributed income of private companies).

13. **Yield of Income Taxes.**—(i) *Collections from all Income Taxes.* The following table shows the collections of taxes of all types imposed on income for the years 1938–39, and 1946–47 to 1950–51 :—

INCOME TAX COLLECTIONS.

(£'000.)

Year.	Total.		
	Commonwealth.	State.	Total.
1938–39	11,882	29,812	41,694
1946–47(*a*)	207,800	502	208,302
1947–48(*a*)	232,944	368	233,312
1948–49(*a*)	272,368	235	272,603
1949–50(*a*)	279,663	258	279,921
1950–51(*a*)	341,970	279	342,249

(*a*) Commonwealth collections are greater than the Budget figures by the amount of refunds of State taxes. State collections are net arrears.

(ii) *Commonwealth Income Tax Assessed.* The amounts of Commonwealth taxes assessed on the income of recent years are shown in the following table. The amounts are shown under the year in which most of the assessments were made, i.e., the year following the income year. Income taxes assessed on income for past years and for the years shown after the close of the normal assessing period are not included.

COMMONWEALTH INCOME TAXES ASSESSED.

(£'000.)

Tax.	1939–40.	1946–47.	1947–48.	1948–49.	1949–50.	1950–51.
Individuals—						
Income Tax	7,423	111,281	75,886	79,545	78,982	80,712
Social Services Contribition	..	24,778	62,152	75,424	86,214	92,588
Companies—						
Income Tax	8,041	40,099	48,174	55,543	62,758	74,952
Super Tax	..	3,638	4,205	4,960	5,838	7,046
War-time (Company) Tax	..	3,319	..	..	..	..
Undistributed Income Taxes[a]—						
Private Companies ..	688	12,303	15,772	8,380	6,644	2,706
Non-Private Companies ..	..	1,967	2,893	3,203	4,186	4,143
Total	16,152	197,385	209,082	227,055	244,622	262,147

(*a*) Approximate.

(iii) *Commonwealth Income Tax on Residents—Grades of Income.* Individual income taxes assessed on residents are distributed according to grades of actual income (income before allowing deductions of a concessional nature or statutory exemptions and including exempt income) in the following table. The year shown in each case refers to the year in which assessment was made, i.e., the year following the income year. The figures relate only to assessments made on the income of the previous year during the normal assessing period. Assessments issued after the normal assessing period are excluded.

COMMONWEALTH INCOME TAXES ON RESIDENT INDIVIDUALS IN GRADES OF ACTUAL INCOME.

Grade of Actual Income.	1939–40.		1947–48.(*a*)		1948–49.(*a*)		1949–50.(*a*)		1950–51.(*a*)	
	No. of Tax-payers.	Tax.	No. of Tax-payers.	Tax.	No. of Tax-payers.	Tax.	No. of Tax-payers.	Tax.	No. of Tax-payers.	Tax.
£ £		£'000.		£'000.		£'000.		£'000.		£'000.
Under £151	..	..	214,790	722	194,947	583	165,454	403	152,219	315
151– 200	..	..	282,529	2,298	240,677	1,730	210,687	1,085	192,835	766
201– 250	..	..	271,790	4,465	262,569	3,302	233,996	2,040	217,195	1,392
251– 300	47,732	27	292,173	6,682	231,094	4,450	242,237	3,182	238,089	2,263
301– 350	55,375	53	386,160	11,558	271,721	6,098	221,428	3,821	227,007	2,883
351– 400	48,835	73	322,688	12,224	333,946	8,848	273,497	5,658	232,212	3,566
401– 500	68,168	182	311,376	16,230	513,979	17,448	608,272	16,434	613,437	12,176
501– 600	38,939	197	132,164	10,093	233,110	11,442	361,222	13,754	475,486	13,298
601– 800	(*b*) 29,912	294	102,806	11,830	167,891	12,973	265,412	15,950	379,077	16,705
801– 1,000	(*c*) 23,070	460	41,840	7,435	63,535	8,225	85,254	8,790	117,671	8,972
1,001– 1,250	10,922	372	26,715	6,805	39,697	7,714	49,846	7,924	62,573	7,511
1,251– 1,500	6,281	306	15,512	5,465	23,776	6,505	27,473	6,378	33,790	5,982
1,501– 2,000	7,987	691	16,503	8,310	26,692	10,611	31,981	10,781	38,430	10,390
2,001– 3,000	4,549	686	12,645	10,835	21,946	15,066	28,878	16,855	34,940	17,176
3,001– 4,000	2,045	615	4,260	6,232	8,191	9,489	11,785	11,671	14,277	12,393
4,001– 5,000	984	484	1,888	3,976	3,765	6,322	5,714	8,441	6,981	9,134
5,001–10,000	1,298	1,321	2,159	7,471	4,753	13,554	6,748	17,958	9,494	22,991
10,001–15,000	205	504	317	2,111	732	4,418	984	5,829	1,752	9,461
15,001–30,000	(*d*) 92	393	151	1,835	354	3,973	442	4,770	954	10,060
30,001–50,000	(*e*) 39	316	21	412	46	855	84	1,712	155	3,385
50,001 and over	8	141	11	396	19	658	24	1,016	39	1,773
Total ..	346,441	7,115	2,438,498	137,394	2,643,440	154,264	2,831,418	164,452	3,048,613	172,592

(*a*) Includes Social Services Contribution. (*b*) Grade £601–£750. (*c*) Grade £751–£1,000. (*d*) Grade £15,001–£25,000. (*e*) Grade £25,001–£50,000.

CHAPTER XVIII.

MINERAL INDUSTRY.

§ 1. The Mineral Wealth of Australia.

1. **Place of Mining in Australian Development.**—The discovery of gold in payable quantities first attracted population to Australia in large numbers and was thus a significant factor in its early development. In more recent times the rapid growth of Australia's secondary industries has been associated with considerable expansion in mining for silver-lead-zinc, copper and iron ores, and for coal. However, the value of mineral production has lagged behind that recorded for Australia's large rural industries and in 1949 represented only about 7.3 per cent. of the net value of production of all primary industries.

2. **Extent of Mineral Wealth.**—The extent of the total mineral wealth of Australia cannot yet be regarded as completely ascertained, as large areas of country still await geological surveys. More detailed reference to this matter will be found in preceding issues of the Official Year Book. (*See* No. 22, p. 755.)

During the years 1934 to 1940 a survey of certain areas in Australia north of the 22nd parallel of south latitude was undertaken by the Governments of the Commonwealth, Queensland and Western Australia. This survey is referred to in § 14 below.

3. **Quantity and Value of Production in 1949.**—The quantities (where available) and the values of certain of the principal minerals produced in each State, and in Australia as a whole, during 1949, are shown in the tables immediately following. It must be clearly understood that the figures quoted in these tables refer to the quantities and values of the various minerals in the form in which they were reported to the State Mines Departments, and represent amounts which the Mines Departments consider may fairly be taken as accruing to the mineral industry as such. They are not to be regarded as representative of Australia's potentiality as a producer of metals. New South Wales is, of course, in normal times a large producer of iron and steel from iron ore mined in South Australia. As the table shows, the latter State receives credit for this iron ore in its mineral returns. The iron and steel produced therefrom cannot be assigned to the mineral industry of New South Wales, but the value of the transformation from

ore to metal is credited to the manufacturing industry of that State. Similarly, lead, silver-lead, cadmium, cobalt and zinc are credited in the form reported to the State of origin—chiefly New South Wales—although the actual metal extraction is carried out principally in South Australia and Tasmania.

The quantities of cadmium and cobalt recovered in Tasmania from zinc ores mined in New South Wales during 1949 are shown in § 7, par. 2 (page 875).

MINERAL PRODUCTION: QUANTITIES, 1949.

Mineral.	Unit.	N.S.W.	Vic.	Q'land.	S. Aust.	W.Aust.	Tas.	N.T.	Australia.
Metallic—									
Antimony Ore and Concentrate ..	ton	307	16	48	..	22	..	..	393
Arsenic Oxide ..	,,	..	(a)	..	..	33	..	..	(b) 33
Bauxite	,,	1,264	4,028	..	..	..	..	..	5,292
Bismuth Concentrate	cwt.	10	..	18	..	..	..	..	28
Cadmium	ton	(c)	..	..	..	..	38	..	(b) 38
Copper—Ingot and Matte ..	,,	2,453	..	4,925	3	..	5,229	..	17,405
Ore ..	,,	..	..	..	..	303	..	4,492	
Gold	fine oz.	51,793	68,426	76,282	2,198	648,426	12,152	29,781	889,058
Iron Ore	ton	10,313	..	2,101	1,447,731	12,524	..	..	1,472,669
Lead	,,	(d)	..	37,697	99	..	7,874	..	(b) 45,670
Manganese Ore ..	,,	1,580	..	233	1,856	9,420	..	..	13,089
Molybdenite Concentrate	cwt.	2	..	116	..	..	..	..	118
Pyritic Ore and Concentrate	ton	(a)	..	(a)	..	31,299	(a)	..	(b) 31,299
Silver	fine oz.	(d) 99,158	12,316	2,872,577	1,749	(e) 194,721	1,011,032	..	(b) 4,191,553
Silver-lead Ores, Concentrate, etc. ..	ton	220,046	..	..	..	2,922	..	23	222,991
Tantalite	lb.	..	..	..	..	2,606	..	896	3,502
Tin Concentrate ..	ton	616	49	1,051	..	35	883	27	2,661
Tungsten—Scheelite Concentrate ..	,,	4	..	2	..	1	803	..	810
Wolfram Concentrate ..	,,	7	..	50	..	..	264	55	376
Zinc and Concentrate	,,	257,040	..	21,241	..	..	20,286	..	298,567
Zircon-Rutile-Ilmenite-Monazite Concentrate	,,	30,397	..	11,061	..	72	..	..	41,530
Fuel—									
Coal, Black—									
Semi-Anthracite and Bituminous ..	,,	10,728,373	122,507	1,970,388	..	..	181,618	..	14,105,843
Sub-Bituminous ..	,,	7,725	..		344,638	750,594	..	..	
Coal—Brown (including Lignite) ..	,,	..	7,375,559	..	..	..	..	..	7,375,559
Oil (Crude Petroleum)	gal.	..	34,410	..	..	..	..	..	34,410
Shale (Oil)	ton	120,956	..	..	..	..	..	..	120,956
Non-Metallic—									
Asbestos	,,	280	..	..	17	1,297	..	..	1,594
Barytes	,,	1,969	..	..	3,495	..	..	..	5,464
Clay(*b*)—Bentonitic ..	,,	..	..	24	..	150	..	..	174
Damourite ..	,,	..	..	..	692	..	..	..	692
Fireclay ..	,,	..	..	..	8,827	..	..	..	8,827
Fuller's Earth	,,	119	..	..	..	..	..	..	119
Kaolin ..	,,	..	9,051	60	2,858	80	7,316	..	19,365
Ochre and Pigments..	,,	680	..	85	32	44	21	100	962
Other ..	,,	..	..	..	29,300	10,047	..	..	39,347
Diatomite	,,	2,752	854	403	..	540	..	..	4,549
Felspar	,,	7,248	..	..	2,433	1,049	..	..	10,730
Graphite	,,	25	..	25	69	..	5	..	124
Gypsum	,,	82,653	30,985	..	147,698	25,907	..	..	287,243
Limestone Flux ..	,,	58,782	3,952	..	379,854	..	22,000	..	464,588
Magnesium—Dolomite	,,	37,078	..	(f)	..	50	..	..	(b) 37,128
Magnesite	,,	30,991	..	..	565	2,034	..	..	33,590
Mica	lb.	6,720	..	..	..	1,254	..	64,473	(b) 72,447
Phosphates ..	ton	11	..	..	..	..	..	..	11
Salt	,,	..	(f)	(f)	168,450	(f)	..	..	(b) 168,450
Silica	,,	35,806	..	..	24,344	986	3,095	..	64,231
Talc and Soapstone (Steatite).. ..	,,	1,685	..	..	6,643	181	..	..	8,509

(*a*) Not available. (*b*) Incomplete. (*c*) Excludes cadmium and cobalt extracted in Tasmania from zinc ores and concentrates produced at Broken Hill. (*d*) The bulk of silver and lead is contained in the concentrates, etc., despatched from the Broken Hill field and treated outside the State. (*e*) Silver as a by-product from gold mining: *see also* Silver-lead Ores, Concentrates, etc. (*f*) Not reported.

The values of the minerals raised in each State in 1949 are shown in the following table :—

MINERAL PRODUCTION : VALUES, 1949.

(£.)

Mineral.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	Australia.
Metallic—								
Antimony Ore and Concentrate ..	19,737	1,129	4,039	..	954	..	..	25,859
Arsenic Oxide ..	..	(a)	..	..	983	..	..	(b) 983
Bauxite	606	5,879	..	..	..	..	..	6,485
Bismuth Concentrate	360	..	436	..	..	..	..	796
Cadmium	(c)	..	..	..	..	43,841	..	(b) 43,841
Copper—Ingot and Matte ..	433,363	..	758,374	394	..	735,365	..	2,076,786
Ore ..	..	..	..	..	3,451	..	145,839	
Gold (d)	638,994	835,848	930,626	25,512	7,858,791	152,841	369,027	10,811,639
Iron Ore	10,149	..	4,662	1,465,005	4,365	..	..	1,484,181
Lead	(e)	..	4,136,607	8,406	..	796,701	..	b 4,941,714
Manganese Ore ..	14,807	..	2,543	5,981	56,289	..	..	79,620
Molybdenite Concentrate	40	..	1,527	..	..	..	..	1,567
Pyritic Ore and Concentrate	(a)	..	(a)	..	125,857	(a)	..	(b) 125,857
Silver	(e) 25,442	3,054	584,075	391	(f) 49,246	207,238	..	(b) 869,446
Silver-lead Ores, Concentrate, etc. ..	14,307,964	..	..	..	154,777	..	973	14,463,714
Tantalite	..	..	..	..	286	..	240	526
Tin Concentrate ..	261,067	20,109	396,412	..	13,079	380,942	10,138	1,081,747
Tungsten—Scheelite Concentrate ..	2,028	..	700	..	219	272,668	..	275,615
Wolfram Concentrate ..	2,400	..	20,301	..	..	100,738	20,521	143,960
Zinc and Concentrate ..	3,438,949	..	1,954,199	..	..	1,713,499	..	7,106,647
Zircon-Rutile-Ilmenite-Monazite Concentrate	313,218	..	177,110	..	255	..	..	490,583
Other Metallic Minerals	170	..	385	70	1,497	124	..	2,246
Total, Metallic ..	19,469,294	806,019	8,971,996	1,505,759	8,270,049	4,403,957	546,738	44,033,812
Fuel—								
Coal, Black—								
Semi-Anthracite and Bituminous ..	g16,121,554	379,464	2,874,062	..	..	181,897	..	20,701,541
Sub-Bituminous ..	..	..		172,319	972,245	..	..	
Coal—Brown (including Lignite) ..	..	1,469,455	..	..	..	..	..	1,469,455
Oil (Crude Petroleum)	..	1,004	..	..	..	..	..	1,004
Shale (Oil) ..	181,437	..	..	..	..	..	..	181,437
Other Fuel Minerals ..	206	..	..	..	..	..	..	206
Total, Fuel ..	16,303,197	1,849,923	2,874,062	172,319	972,245	181,897	..	22,353,643
Non-Metallic—								
Asbestos	16,123	..	..	458	125,332	..	..	141,913
Barytes	4,164	..	..	19,915	..	..	..	24,079
Clay(b)—Bentonitic ..	..	..	96	..	450	..	..	546
Damourite	..	..	..	2,993	..	..	..	2,993
Fireclay ..	..	..	..	5,520	..	..	..	5,520
Fuller's Earth	214	..	..	..	..	..	..	214
Kaolin ..	..	13,372	173	4,994	160	24,621	..	43,320
Ochre and Pigments ..	1,171	..	556	50	366	67	501	2,711
Other ..	..	..	..	12,911	11,813	..	..	24,724
Diatomite	3,269	4,604	1,540	..	950	..	..	10,363
Felspar	17,148	..	..	7,350	3,934	..	..	28,432
Graphite	250	..	148	2,164	..	10	..	2,572
Gypsum	55,476	18,124	..	110,773	18,610	..	..	202,983
Limestone Flux ..	29,130	3,551	..	157,628	..	16,000	..	206,309
Magnesium—Dolomite	25,696	..	(h)	..	248	..	..	(b) 25,944
Magnesite	60,287	..	..	1,853	4,714	..	..	66,854
Mica	21	..	..	..	1,343	..	52,014	53,378
Opal	1,592	..	1,200	39,798	..	..	..	42,590
Phosphates	28	..	..	..	..	..	..	28
Salt	..	(h)	(h)	336,900	(h)	..	..	(b) 336,900
Silica	16,555	..	..	13,267	1,014	2,219	..	33,055
Talc and Soapstone (Steatite)	5,866	..	..	44,333	2,375	..	..	52,574
Other Non-Metallic Minerals	12,128	..	8,499	3,878	49,751	..	..	74,256
Total, Non-Metallic	240,118	39,651	12,212	764,785	221,060	42,917	52,515	1,382,258
Total All Minerals	36,021,609	2,755,593	,858,270	2,442,863	9,463,354	4,628,771	590,253	67,769,713

(a) Not available. (b) Incomplete. (c) Excludes cadmium and cobalt extracted in Tasmania from zinc ores and concentrates produced at Broken Hill. (d) Gold values calculated on current price of gold in Australian currency. (e) The bulk of silver and lead is contained in the concentrates, etc., despatched from the Broken Hill field and treated outside the State. (f) Silver as a by-product from gold mining: *see also* Silver-lead Ores, Concentrates, etc. (g) Includes small tonnage of sub-bituminous coal. (h) Not reported.

The figures in the foregoing table exclude certain materials, such as stone for building and industrial uses, sand, gravel, brick and pottery and other clays and limestone which usually are included under the generic term "mineral". Particulars of the production of some of these items are given in par. 6, Quarries, below. Items normally included in mine or quarry production by the Mines Departments of some States, such as cement, carbide and sulphuric acid, are omitted therefrom and included in manufacturing production. As far as possible, the mineral materials used in the manufacture of these products are included in mine or quarry production.

4. **Value of Production, 1938, 1945 to 1949.**—The values of the minerals produced in each State during the years 1938 and 1945 to 1949 are given in the table hereunder :—

MINERAL PRODUCTION : VALUES.

(£.)

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	Australia.
1938 ..	10,786,157	1,884,015	3,966,119	2,932,473	10,844,469	1,889,804	214,724	32,517,761
1945 ..	16,879,131	1,830,374	4,355,127	2,309,991	5,804,238	1,934,066	176,197	33,289,124
1946 ..	20,327,962	2,079,353	4,761,403	2,776,145	7,586,707	2,855,674	166,543	40,553,787
1947 ..	26,264,688	2,206,628	8,545,299	3,209,382	8,862,277	4,224,756	229,437	53,542,467
1948 ..	36,350,972	2,346,855	9,211,588	3,260,309	8,561,269	4,366,730	294,078	64,391,801
1949 ..	36,021,609	2,755,593	11,858,270	2,442,863	9,463,354	4,628,771	599,253	67,769,713

The value of mineral production in Australia reached its highest level in 1949 at £67,769,713 compared with £64,391,803 in 1948 and £32,517,761 in 1938. Although this marked increase since 1938 was due to some extent to higher quantity output the main contributing factors were the increased prices paid in 1949 for coal, silver, lead and zinc.

Since 1938 the greatest increase has occurred in New South Wales, £25,235,452; followed by Queensland, £7,892,151; Tasmania, £2,738,967; Victoria, £871,578. Because of the reduced output of gold in Western Australia, the value of minerals produced in that State was £1,381,115 lower in 1949 than in 1938. The value of mineral output decreased in South Australia between 1938 and 1949 by £489,610.

5. **Total Production to end of 1949.**—In the next table will be found the estimated value of the total mineral production in each State up to the end of 1949. The items excluded from the preceding table are also omitted here, and consequently the total for New South Wales is considerably less than that published by the State Department of Mines. The principal items excluded from the table below are coke, cement, lime, marble, slate, granite, chert, gravels, etc., which the State Department now includes in the returns for quarries.

MINERAL PRODUCTION : VALUES TO END OF 1949.

(£'000.)

Mineral.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	Australia.
Gold ..	74,653	320,931	102,198	2,208	305,249	11,669	4,331	821,239
Silver and lead ..	219,088	290	27,211	405	3,025	15,885	70	265,974
Copper ..	18,968	217	36,284	33,314	1,827	32,249	414	123,273
Iron ..	9,452	16	546	39,218	43	97	..	49,372
Tin ..	20,230	1,313	14,754	..	1,733	22,183	732	60,935
Wolfram	436	19	1,551	..	7	1,240	863	4,116
Zinc ..	40,095	..	9,326	16	5	11,320	..	60,762
Coal ..	342,159	29,316	45,815	435	15,788	3,865	..	437,378
Other ..	12,440	1,157	3,660	17,914	2,482	3,979	453	42,085
Total ..	737,521	353,259	241,345	93,510	330,149	102,487	6,863	1,865,134

The "other" minerals in New South Wales include alunite, £234,000; antimony £479,000; arsenic, £212,000; bismuth, £264,000; chrome, £143,000; diamonds, £151,000; magnesite, £907,000; molybdenite, £232,000; opal, £1,646,000; scheelite, £264,000; and shale oil, £4,201,000. In the Victorian returns antimony ore was responsible for

£638,000. The value for coal in this State includes £10,230,000 for brown coal. Included in "other" in the Queensland production were opal, £190,000; gems, £662,000; bismuth, £147,000; cobalt, £158,000; molybdenite, £632,000; limestone flux, £903,000; and arsenic, £124,000. The chief items in South Australian "other" minerals were salt, £7,443,000; limestone flux, £1,247,000; gypsum, £2,038,000; phosphate, £196,000; and opal, £458,000. In Western Australia arsenic, £747,000; gypsum, £253,000; and asbestos, £432,000 were the principal items included with "other" minerals. In the Tasmanian returns osmiridium was responsible for £665,000, scheelite for £1,486,000 and limestone flux for £1,416,000.

6. **Quarries.**—Statistics giving details of the output of quarries were first published in Official Year Book No. 33, 1940. The details were collected following a resolution of the Conference of Australian Statisticians held in 1935.

The Conference decided that quarries, for the purpose of these statistics, should be confined to establishments in which four persons or more are employed, or in which power other than hand-power is used. The Conference, however, did not define the types of establishments which should be included as quarries, either according to the nature of the product or the method of obtaining the "mineral" material. Further difficulties have arisen owing to collection being made wholly or in part by Mines Departments in some States on bases inconsistent with those adopted by Statisticians. Consequently, the statistics which have been collected and reported as quarry production lack uniformity in many respects, while practices have varied considerably in classifying such materials as limestone and clays to mining or quarrying. The gathering of sand for various purposes has in general been omitted from quarry production.

The quarrying of limestone for use as a flux has for many years been included in "Mineral" production for all States (*see* para. 3 preceding). Limestone used for other purposes (cement, lime, chemicals, etc.) has been reported as quarry production but the figures are incomplete for most States. In 1949–50 limestone used by Australian factories for the manufacture of cement and lime and for general chemical purposes amounted to 1,939,449 tons, valued at £1,007,645.

The production of certain types of clays is included in "mineral" production, particulars being shown in the tables in para. 3 preceding. In addition, considerable quantities of clays are reported under quarry production, totals furnished for 1949 being as follows:—New South Wales, 1,251,606 tons, £289,927; Victoria, 81,336 tons, £32,468; Queensland, 109 tons, £652; South Australia, 251,333 tons, £58,765; Western Australia, 10,321 tons, £12,789; Tasmania, 7,337 tons, £24,688; Total, 1,602,042 tons, £419,289.

Particulars of the reported output of establishments engaged in the quarrying of building stone, macadam, ballast, etc. during 1949 (or other appropriate year) are shown in the table below.

BUILDING STONE, MACADAM, BALLAST, ETC., QUARRIED, 1949.

Particulars.	N.S.W.	Vic.(*a*)	Q'land.(*b*)	S. Aust.	W. Aust. (*a*)	Total.(*c*)
			QUANTITY (TONS).			
Building Stone ..	847,540	8,678	24,123	122,102	27,374	1,029,817
Macadam, Ballast, etc.	5,749,477	1,125,107	800,192	2,911,700	300,344	10,886,820
			VALUE (£.).			
Building Stone ..	489,953	33,666	10,780	85,742	29,551	649,692
Macadam, Ballast, etc.	1,734,819	610,856	248,966	728,287	195,355	3,518,283

(*a*) 1948–49. (*b*) 1949–50. (*c*) Excludes Tasmania, Northern Territory and Australian Capital Territory, particulars for which are not available.

§ 2. Gold.

1. **Discovery in Various States.**—The discovery of gold in payable quantities was an epoch-making event in Australian history, for, as one writer aptly phrases it, this event " precipitated Australia into nationhood ". A more or less detailed account of the finding of gold in the various States appears under this section in Official Year Books, Nos. 1 to 4.

2. **Production at Various Periods.**—(i) *Quantities.* The following table shows the quantity of gold produced in the several States and in Australia as a whole during each of the nine decennial periods from 1851 to 1940, and in single years from 1941 to 1949. Owing to the defective information in the earlier years the figures fall considerably short of the actual totals, for during the first stages of mining development large quantities of gold were taken out of Australia by successful miners who preferred to keep the amount of their wealth secret.

GOLD : QUANTITY PRODUCED.

('000 fine oz.)

Period.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	Australia.
1851–60 ..	2,715	21,973	3	..	..	186	..	24,877
1861–70 ..	3,220	15,327	489	..	..	3	..	19,039
1871–80 ..	2,019	9,564	2,527	136	..	165	19	14,430
1881–90 ..	1,014	6,689	3,259	58	42	357	168	11,587
1891–1900 ..	2,432	7,040	5,648	52	5,252	550	214	21,188
1901–10 ..	2,253	7,095	5,512	73	17,784	604	111	33,432
1911–20 ..	1,145	3,067	2,263	55	10,671	202	23	17,426
1921–30 ..	204	593	434	10	4,557	43	2	5,843
1931–40 ..	569	1,052	1,021	53	8,474	130	84	11,383
1941	88	150	109	2	1,109	20	19	1,497
1942	77	101	95	2	848	19	12	1,154
1943	64	56	63	1	546	17	4	751
1944	63	54	51	1	466	17	5	657
1945	43	62	63	..	469	13	7	657
1946	32	87	62	1	617	15	10	824
1947	50	85	72	1	704	15	11	938
1948	52	69	70	2	665	13	15	886
1949	52	69	76	2	648	12	30	889
Total, 1851–1949	16,092	73,133	21,817	449	52,852	2,381	734	167,458

The amount of gold raised in Australia in any one year attained its maximum in 1903, when Western Australia also reached its highest point. For the other States the years in which the greatest yields were obtained were as follows :—New South Wales, 1852 ; Victoria, 1856 ; Queensland, 1900 ; South Australia, 1904 ; and Tasmania, 1899.

Owing to the exhaustion of the more easily worked deposits and increased costs due to deep mining the production of gold in Australia declined from 3,837,979 fine oz. in 1903 to 427,160 fine oz. in 1929, the lowest output since the discovery of the precious metal.

Increased activity in prospecting due to prevailing economic conditions resulted in some improvement in 1930, but the marked development between that year and 1939 received its impetus from the heavy depreciation of Australian currency in terms of gold. Oversea and local capital were attracted to the industry, and the employment of advanced geological methods and technical improvements brought many difficult or abandoned propositions into profit. The output of gold rose annually from 467,742 fine oz. in 1930 to 1,645,697 fine oz. in 1939. Following the outbreak of war in 1939, production fell very slightly in 1940, and rapidly thereafter, due to the diversion of man-power, until in 1944 it was only 656,867 fine oz. In 1945, the year in which hostilities in the 1939–45 War ceased, production showed practically no change, but in 1946 a marked increase of 167,267 fine oz. or 25 per cent. was recorded. A further increase occurred in 1947, but production fell in 1948 and remained at much the same level in 1949. Output in this year, 889,058 fine oz. was 35 per cent. higher than the war-time trough of 657,000 fine oz. in 1944 and 1945 but was 46 per cent. less than output in 1939.

(ii) *Values.* In the next table the gold produced since 1851 is valued in Australian currency. For the years 1851 to 1918 and 1925 to 1930 the price used was £4 4s. 11$^5/_{11}$d. per fine oz. For the years 1919 to 1924 the price ranged between £5 12s. 6d. in 1920 and £4 8s. 6d. in 1923. The value applied for 1931 and to June, 1932 was the export parity calculated directly from London prices. Since then the average price paid by the Australian branches of the Royal Mint has been used.

GOLD: VALUE OF PRODUCTION.

(£.)

Period.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	Australia.
1851–60..	11,530,583	93,337,052	14,565	..	..	788,564	..	105,670,764
1861–70..	13,676,103	65,106,264	2,076,494	..	..	12,174	..	80,871,035
1871–80..	8,576,654	40,625,188	10,733,048	579,068	..	700,048	79,022	61,293,028
1881–90..	4,306,541	28,413,792	13,843,081	246,668	178,473	1,514,921	713,345	49,216,821
1891–1900	10,332,120	29,904,152	23,989,359	219,931	22,308,524	2,338,336	906,988	89,999,410
1901–10..	9,569,492	30,136,686	23,412,395	310,080	75,540,415	2,566,170	473,871	142,009,109
1911–20..	4,988,377	13,354,217	9,876,677	238,808	46,808,351	873,302	(a) 100,652	76,240,384
1921–30..	940,946	2,721,309	1,976,715	47,564	20,462,957	193,833	(b) 11,545	26,354,869
1931–40..	5,115,397	9,444,570	9,118,903	459,330	74,391,204	1,164,492	786,790	100,480,686
1941 ..	941,243	1,600,016	1,164,623	17,907	11,852,046	212,709	201,599	15,990,143
1942 ..	807,436	1,060,910	994,214	13,931	8,865,632	191,835	126,035	12,059,993
1943 ..	666,491	590,540	656,657	5,424	5,710,664	180,210	40,880	7,850,866
1944 ..	657,161	568,305	538,177	5,661	4,899,129	174,889	57,804	6,901,126
1945 ..	461,304	661,430	676,712	2,970	5,009,548	139,573	76,811	7,028,348
1946 ..	344,497	936,262	675,164	6,760	6,640,075	165,334	105,376	8,873,468
1947 ..	539,008	911,681	777,924	6,770	7,575,573	161,986	118,560	10,091,502
1948 ..	561,415	738,100	749,565	21,912	7,156,912	138,889	163,482	9,530,275
1949 ..	638,994	835,848	930,626	25,512	7,842,604	152,841	369,027	10,795,452
Total, 1851–1949	74,653,762	320,946,322	102,204,899	2,208,296	305,242,107	11,670,106	4,331,787	821,257,279

(a) Period July, 1911 to June, 1920. (b) Period July, 1920 to December, 1930.

Values per fine oz. in Australian currency assigned to the production of gold during recent years are: £9 14s. 5¾d. in 1939, £10 13s. 1⅜d. in 1940, £10 13s. 8d. in 1941, £10 9s. 0⅜d. in 1942, £10 9s. 0d. in 1943, £10 10s. 1½d. in 1944, £10 13s. 11½d. in 1945 and £10 15s. 3d. in 1946, at which level it remained until 19th September, 1949. On that date, following the alteration in the rate of exchange, the value of gold rose to £15 9s. 10d. per fine oz. in terms of Australian currency. Further information regarding the price of gold is given in Chapter XVI.—Private Finance.

3. **Changes in Relative Positions of States as Gold Producers.**—The figures in the table showing the quantity of gold raised explain the very large increase in the population of Victoria during the period 1851 to 1861, when an average of over 40,000 persons reached the State each year. With the exception of 1889, when its output was exceeded by that of Queensland, Victoria maintained its position as the chief gold producer for a period of forty-seven years, until its production was surpassed by that of Western

Australia in 1898. From that year onward the proportion contributed by Western Australia has increased and in 1949 represented 73 per cent. of the entire yield of Australia. The proportion contributed by this State for the period 1851 to 1949 was 32 per cent. and by Victoria for the same period 43 per cent.

4. **Place of Australia in the World's Gold Production.**—The table below shows, in decennial periods from 1851 to 1940 and the quinquennium 1941–45, the world's gold production (as ascertained from authoritative sources) and the share of Australia therein. The details of world production shown for the years 1941 to 1945 are possibly less complete than those shown for other years, because of censorship during the war. The figures recorded for these years represent recorded production only and therefore omit any production for those countries not reporting. Included in this latter group are the Soviet Union and other producing countries of lesser importance.

GOLD : WORLD PRODUCTION.

Period.	World Production of Gold.	Gold Produced in Australia.	Proportion of Australian Production to Total.
	Fine oz.	Fine oz.	%
1851–60	64,482,933	24,877,012	38.58
1861–70	61,098,343	19,038,661	31.16
1871–80	55,670,618	14,429,601	25.92
1881–90	51,280,184	11,586,625	22.59
1891–1900	101,647,521	21,187,662	20.84
1901–10	182,891,525	33,432,069	18.28
1911–20	206,511,263	17,426,466	8.44
1921–30	183,805,900	5,843,052	3.18
1931–40	315,508,597	11,383,487	3.61
1941–45	(a) 134,100,000	4,715,844	3.52
1946	21,600,000	824,480	3.82
1947	21,800,000	937,654	4.30
1948	22,300,000	885,507	3.97
1949	30,107,000	889,058	2.95

(a) Recorded production only. *See* letterpress above.

The quantities of gold produced in the principal producing countries in each of the years 1938 and 1945 to 1949 are shown in the table hereunder.

GOLD: PRODUCTION IN PRINCIPAL COUNTRIES.

('000 fine oz.)

Country.	1938.	1945.	1946.	1947.	1948.	1949.
Union of South Africa	12,161	12,225	11,927	11,200	11,585	11,705
U.S.S.R. (Russia) ..	5,236	(a) 5,000	(a) 6,000	(a) 7,000	(a) 7,000	(a) 7,000
Canada	4,725	2,697	2,833	3,070	3,530	(b) 4,124
United States of America ..	4,245	997	1,625	2,321	2,099	1,996
Australia	**1,592**	**657**	**824**	**938**	**886**	**889**
British West Africa(c)	730	548	590	563	677	682
Rhodesia	815	568	552	523	514	528
Mexico	924	499	421	465	339	406
Colombia	521	507	437	383	335	359
Belgian Congo ..	394	347	331	301	300	334

(a) Estimated. (b) Includes Newfoundland. (c) Includes Gambia, Gold Coast, Nigeria, Sierra Leone.

5. **Employment in Gold-mining.**—The number of persons employed in gold-mining in each State at various intervals since 1901 is shown in the following table. The figures include prospectors, etc., so far as data are ascertainable, and include those who may not have worked during the whole of the year.

GOLD-MINING : PERSONS EMPLOYED.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Nor. Terr.	Total.
1901 ..	12,064	27,387	9,438	(a)1,000	19,771	1,112	(a) 200	70,972
1903(b) ..	11,247	25,208	9,229	(a)1,000	20,716	973	(a) 200	68,573
1913 ..	3,570	11,931	3,123	800	13,445	481	175	33,525
1923 ..	1,141	2,982	603	32	5,555	119	30	10,462
1933 ..	6,913	6,126	4,161	231	9,900	229	95	27,655
1938 ..	3,764	6,315	3,378	158	15,374	141	267	29,397
1945 ..	509	643	1,256	16	4,818	15	46	7,303
1946 ..	772	1,282	1,651	38	6,961	13	106	10,823
1947 ..	795	1,135	1,834	50	7,649	14	176	11,653
1948 ..	702	1,064	1,627	34	7,178	15	171	10,791
1949 ..	688	1,019	(c) 1,589	52	6,800	9	238	10,395

(a) Estimated. (b) Year of maximum production for Australia. (c) Mainly mining for copper-gold ore.

Owing to the exhaustion of the more easily worked deposits and increased costs due to deep mining, the number employed in gold-mining had dwindled to the comparatively small figure of 6,108 in 1929. Stimulated by the enhanced price of gold, employment in the industry rose by almost five-fold to 33,113 in 1935, but thereafter the numbers employed declined each year to 7,015 in 1944. Following the cessation of hostilities and a relaxation of manpower control, the numbers rose in each succeeding year to 11,653 in 1947 but fell to 10,791 in 1948 and to 10,395 in 1949.

6. **Tax on Gold.**—(i) *General.* The Commonwealth Government imposed a tax on gold produced in Australia or in any Territory under its jurisdiction and delivered to the Commonwealth Bank on or after 15th September, 1939. The rate of tax was fixed at 50 per cent. of the price payable by the Bank in excess of £A.9 per fine oz.

The tax on gold yielded £1,214,621 during 1939–40; £1,452,260 during 1940–41; £1,030,425 in 1941–42; £524,694 in 1942–43; £317,720 in 1943–44; £342,457 in 1944–45; £383,552 in 1945-46; and £556,435 in 1946–47. This tax was suspended as from 20th September, 1947 by the Gold Tax Suspension Act 1947.

(ii) *Development of Gold Mining Industry.* Assistance amounting to £150,000 was given to the gold-mining industry, through the medium of the States, during 1940–41. In addition, an amount approximating £150,000 was paid during 1942 and subsequent years for the maintenance of those mines where, under manpower control, miners were transferred to other activities more directly associated with the war effort.

The suspension of the tax on gold referred to above was designed to assist the gold-mining industry in meeting higher costs and to encourage greater output.

7. **Bounty on Production.**—A reference to the bounty provided by the Commonwealth on gold production in Australia appears in Official Year Book No. 32, p. 579.

§ 3. Silver, Lead and Zinc.

1. **Production.**—(i) *General.* The values of production of silver, silver-lead ores, concentrates, etc., zinc and concentrates, as reported by Mines Departments for each of the years 1938 and 1945 to 1949, are shown in the following table :—

SILVER, LEAD AND ZINC : VALUE OF PRODUCTION.

(£.)

Year.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Nor. Terr.	Australia.
1938 ..	3,751,454	647	1,256,078	70	29,477	624,225	..	5,661,951
1945 ..	5,699,005	1,622	17,788	601	22,757	666,867	..	6,408,640
1946 ..	8,378,736	2,687	1,355,993	224	43,860	1,328,009	..	11,109,509
1947 ..	12,355,617	1,910	4,605,580	1,676	48,751	2,125,812	..	19,139,346
1948 ..	19,282,007	2,091	5,111,721	9,862	158,466	2,335,161	1,407	26,900,715
1949 ..	17,772,355	3,054	6,674,881	8,406	204,023	2,717,438	973	27,381,130

(ii) *New South Wales.* By far the greater amount of silver-lead-zinc ore in New South Wales, in fact in Australia, is won from the massive silver-lead-zinc sulphide deposit at Broken Hill. Those concerned in operating this gigantic lode are North Broken Hill Limited (which mines the northern limb of the ore-bearing structure), Broken Hill South Ltd., and Zinc Corporation Ltd. with which is associated New Broken Hill Consolidated (which are conducting operations on the southern limb).

The oxidized lead ores were directly smelted at Broken Hill prior to 1897, when smelting operations were transferred to Port Pirie in South Australia. The present-day sulphide ores are concentrated by gravity and flotation methods at Broken Hill. The lead (galena) concentrates (averaging approximately 76 per cent. lead, 4 per cent. zinc, 30 oz. silver per ton, 9.0 grains of gold per ton, 0.22 per cent. antimony and 0.64 per cent. copper) are railed to Port Pirie, and smelted to produce lead bullion which is later refined by a continuous lead refining process for the elimination of arsenic and antimony and the recovery of silver and gold. A large proportion of the zinc concentrates produced at Broken Hill are roasted by fertilizer plants in South Australia for the recovery of sulphur dioxide for sulphuric acid manufacture, the calcines after roasting being sent to Risdon in Tasmania for refining. The balance of the concentrates is either exported overseas or sent to Risdon in Tasmania for roasting and refining.

At Captain's Flat, Lake George Mines Limited is operating a lode of similar constitution. Concentration of the ore is carried out at the mine itself, after which process individual concentrates of zinc and lead (containing silver) are despatched to Port Kembla, New South Wales, for further treatment. Copper, pyrites and gold are also produced at this mine.

Silver-lead-zinc ore has been mined in small quantities in various other parts of the State, the more important localities being Yerranderie, Howell and Kangiara.

Particulars of the New South Wales mine production of silver, lead and zinc, as reported by the Mines Department, are shown in the table below for the years 1938 and 1945 to 1949. The particulars shown for silver relate, in the main, to the silver content of copper concentrates. The greater part of silver of New South Wales origin is contained in the silver-lead ore and concentrates shown separately in the table. Further particulars of the production of silver, lead and zinc by the Broken Hill and Lake George Mines are given in par. 1 (ix) hereafter.

Despite some reduction in the output of silver-lead ore and concentrates and zinc concentrates since 1938, the reported value of New South Wales production of silver, lead and zinc rose from £3,751,454 in 1938 to £17,772,355 in 1949, because of substantial increases in prices for these metals, particularly export prices (*see* par. 5 hereafter).

SILVER, LEAD AND ZINC: PRODUCTION, NEW SOUTH WALES.

Year.	Silver.(a)		Silver-lead Ore and Concentrates.		Zinc Concentrates.		Total Value.
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	
	Fine oz.	£	tons.	£	tons.	£	£
1938	83,822	7,357	317,230	3,513,108	265,296	230,989	3,751,454
1945	131,309	20,703	205,805	4,604,962	265,284	1,073,340	5,699,005
1946	122,364	28,297	215,928	6,971,256	273,781	1,379,183	8,378,736
1947	112,471	26,242	212,410	10,554,416	249,420	1,774,959	12,355,617
1948	105,314	24,573	228,590	16,643,612	259,260	2,613,822	19,282,007
1949	99,158	25,442	220,046	14,307,964	257,040	3,438,949	17,772,355

(a) Mainly silver content of copper concentrates; most of the silver of New South Wales origin is contained in the silver-lead ore and concentrates shown in the next column.

(iii) *Victoria.* Small quantities of lead sulphide ore occur on most of Victoria's goldfields and in minor amounts in the Omeo, Bethanga and Cassilis districts. There has been no production of lead ore in recent years, the total recorded production being about 800 tons valued at £5,892.

The whole of the Victorian silver production of 12,316 fine oz. valued at £3,054 for 1949 was won as a by-product of the gold mining industry.

(iv) *Queensland.* In the far north-west of Queensland at Mt. Isa, some 600 miles west of Townsville, is operated the mining, milling and smelting enterprise of Mt. Isa Mines Ltd. Here, mining is carried out on extensive silver-lead-zinc ore lodes. After concentration by flotation in the concentrating mill, the silver-lead concentrate is converted to bullion in the smelter. All Mt. Isa bullion is exported overseas, where certain impurities, such as antimony, arsenic, and copper, as well as silver are removed to yield a pure lead suitable for commercial use.

Zinc concentrates and copper-lead dross produced by Mt. Isa are also exported overseas. During the 1939–45 War, operations on silver-lead-zinc ores at Mt. Isa were suspended while the mine was engaged in mining copper, but normal operations of the mine were resumed in 1946.

In 1949 approximately 87 per cent. of Queensland's production of both silver and lead and all the State's output of zinc were produced by the Mt. Isa mines.

The following table shows particulars of Queensland mine or smelter production of silver, lead and zinc, as reported by the Mines Department for the years 1938 and 1945 to 1949. The reduction in output in 1945 and 1946 was due to the suspension of silver-lead-zinc mining at Mt. Isa during the war. The lower output in 1949 compared with 1938 is more than offset by the higher prices received for these metals, the total value for the group having risen from £1,256,078 in 1938 to £6,674,881 in 1949.

SILVER, LEAD AND ZINC: PRODUCTION, QUEENSLAND.

Year.	Silver.(a)		Lead.(a)		Zinc.(a)		Total Value.
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	
	Fine oz.	£	Tons.	£	Tons.	£	£
1938	3,533,490	298,589	41,196	628,025	23,735	329,464	1,256,078
1945	112,710	17,788	..	..	..	..	17,788
1946	980,538	209,094	12,754	627,775	11,361	519,124	1,355,993
1947	2,100,966	380,038	29,590	2,486,942	25,212	1,738,600	4,605,580
1948	2,306,869	422,015	30,779	3,002,381	21,593	1,687,325	5,111,721
1949	2,872,577	584,075	37,697	4,136,607	21,241	1,954,199	6,674,881

(a) Metal content of ores, concentrates and bullion produced.

(v) *South Australia.* Output of lead from local ores has been very small in recent years. In 1949, the lead content of concentrates produced amounted to 99 tons, valued at £8,406. Silver production was 1,749 fine oz., valued at £391, which was also contained in the above lead concentrates.

There has been no recorded zinc production since 1903, when the zinc was contained in lead ores and concentrates which came mainly from the Glen Osmond and Strathalbyn districts.

(vi) *Western Australia.* During 1949, a total of 2,922 tons of silver-lead-zinc ores and concentrates were exported from the State. These shipments contained 1,966 tons of lead, 35 tons of zinc and 9,992 fine oz. of silver. The value of the ores and concentrates was £154,777. The principal producer was the Prothero mine at Nabawa, while the Northampton Mineral Field also provided a large portion of the total ores and concentrates. Other centres of production are in the Naroo, Kooline, Wyloo and Napier Range areas.

In addition to the silver contained in the silver-lead-zinc ores and concentrates, 194,721 fine oz., valued at £49,246, was obtained as a by-product from the gold bullion despatched to the Perth Mint from the various goldfields.

Particulars of silver, lead and zinc production, as reported by the Mines Department of Western Australia for the years 1938 and 1945 to 1949, are shown below.

SILVER, LEAD AND ZINC : PRODUCTION, WESTERN AUSTRALIA.

Year.	Silver-lead-zinc Ores and Concentrates.		Silver in Gold Bullion.		Total Value.
	Quantity.	Value.	Quantity.	Value.	
	Tons.	£	Fine oz.	£	£
1938	352	625	271,346	28,852	29,477
1945	..	..	146,025	22,757	22,757
1946	36	1,068	171,452	42,792	43,860
1947	22	937	199,302	47,814	48,751
1948	2,192	114,268	187,818	44,198	158,466
1949	2,922	154,777	194,721	49,246	204,023

(vii) *Tasmania.* There are two large centres of silver-lead-zinc mining in Tasmania. The more important is the field operated by the Electrolytic Zinc Company of Australasia, Ltd. at Read-Rosebery. These are primarily zinc mines, although lead and copper-lead concentrates are also produced. This company also owns the electrolytic zinc works at Risdon near Hobart.

The lead concentrates and copper-lead concentrates produced at Rosebery are exported overseas.

The zinc concentrates, which are the principal product from the mine, also contain some lead. This concentrate is sent to Risdon for roasting and refining, portion of the resultant lead residue being sent to Port Pirie in South Australia for refining, the balance being dumped. In addition to the refining of zinc concentrates produced at Rosebery, the Risdon plant also treats considerable quantities of zinc concentrates from the Broken Hill mines.

Of secondary importance to Rosebery is the Mount Farrell field, situated 6 miles north-east of Rosebery. These ore-bodies are mainly silver-lead lodes which yield a lead concentrate with high silver content. The zinc content is insufficient to warrant recovery.

Most of the State's silver is contained in concentrates produced at Rosebery and Mount Farrell. Some silver is obtained from the Mount Lyell copper refinery tank house slimes which are treated at Port Kembla in New South Wales.

Particulars of Tasmanian mine production of silver, lead and zinc, as reported by the Department of Mines, are shown in the following table for the years 1938 and 1945 to 1949. As with New South Wales and Queensland, increased prices for these metals have resulted in a considerable rise in total values from £624,225 in 1938 to £2,717,438 in 1949.

SILVER, LEAD AND ZINC : PRODUCTION, TASMANIA.

Year.	Silver.(a)		Lead.(a)		Zinc.(a)		Total Value.
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	
	Fine oz.	£	Tons.	£	Tons.	£	£
1938	1,219,550	104,671	10,652	163,102	25,366	356,452	624,225
1945	816,157	102,101	6,298	157,459	15,609	407.307	666,867
1946	896,293	187,428	6,891	340,509	17,990	800,072	1,328,009
1947	918,791	169,068	7,719	660,861	18,513	1,295.883	2,125,812
1948	907,216	168,726	7,328	697,194	18,504	1,469.241	2,335,161
1949	1,011,032	207,238	7,874	796,701	20,286	1,713,499	2,717,438

(a) Metal content of ores and concentrates of Tasmanian origin.

(viii) *Northern Territory.* During 1949, 23 tons of silver-lead ore, valued at £973, were mined. In 1948, 26 tons of ore, valued at £1,407, were raised. The output in each case came mainly from a few old mines in the northern part of the Territory, abandoned since the early days of mining. The principal centres are Boomiera, Mount Shoobridge, McArthur River and Jervois Range.

(ix) *Australia.* The table at the commencement of this section shows particulars for each State and for Australia as a whole of the total values ascribed to silver-lead-zinc mining by State Departments of Mines. Owing to lack of uniformity in the bases of reporting quantity output adopted by Mines Departments, data from those sources do not give a satisfactory picture of total output of the industry in Australia. A better indication is given in the following table, which shows the estimated silver, lead and zinc *content* of ores and concentrates produced in Australia according to data compiled by the Australian Mines and Metals Association. Comparable figures for 1938 are not available.

SILVER, LEAD AND ZINC CONTENTS OF ORES AND CONCENTRATES PRODUCED.

Year.	Broken Hill, N.S.W.	Captain's Flat, N.S.W.	Mt. Isa, Q'land.	Rosebery, Tas.	Mt. Farrell, Tas.	Other.	Total, Australia.
				SILVER (fine oz.).			
1939	9,367,951	144,066	3,707,908	969,797	..	1,130,394	15,320,116
1945	6,004,172	137,543	..	681,905	136,390	1,116,730	8,076,740
1946	5,994,445	213,324	932,408	757,253	134,450	1,013,400	9,045,280
1947	5,429,536	171,063	2,069,273	768,419	140,585	948,264	9,527,140
1948	6,026,314	118,978	2,235,562	803,654	82,320	790,691	10,057,519
1949	5,792,157	71,371	2,485.473	916,530	77,300	506,382	9,849,213
1950	6,037,103	227,582	2,748,655	1,072,234	94,040	497,842	10,677,456
				LEAD (tons).			
1939	215,198	7,919	43,955	9,104	..	3,827	280,003
1945	148,891	6,646	..	5,632	1,161	2,411	164,741
1946	152,407	9,041	12,288	6,249	1,167	2,683	183,835
1947	147,656	7,543	29,437	6,990	1,222	3,775	196,623
1948	164,645	5,518	30,165	7,001	765	8,861	216,955
1949	160,645	2,871	32,621	7,573	747	9,034	213,491
1950	156,842	9,137	37,021	8,579	894	6,703	219,176
				ZINC (tons).			
1939	145,207	11,850	29,092	31,107	..	..	217,256
1945	118,566	11,893	..	19,854	..	..	150,313
1946	122,776	15,187	11,269	22,678	..	..	171,910
1947	120,993	12,667	24,994	23,604	..	..	182,258
1948	136,144	9,445	21,578	23,151	..	151	190,469
1949	129,894	5,077	21,252	25,740	..	35	181,998
1950	130,147	15,972	25,800	30,462	..	3	202,384

2. **Production, Sales and Stocks of Refined Silver, Lead and Zinc.**—In the following table, details are given of the quantities of *refined* silver, lead and zinc produced in Australia, and of the quantities sold and stocks held for the years 1939 and 1946 to 1950, according to data compiled by the Australian Mines and Metals Association. Comparable figures for 1938 are not available.

REFINED SILVER, LEAD AND ZINC: PRODUCTION, SALES AND STOCKS, AUSTRALIA.

Particulars.	1939.	1946.	1947.	1948.	1949.	1950.
SILVER ('000 fine oz.)						
Stocks from previous year ..	122	465	241	445	284	633
Production for year ..	9,552	6,183	6,658	6,212	5,573	6,653
Total Available Supply ..	9,674	6,648	6,899	6,657	5,857	7,286
Sold to Australian consumers	1,794	6,407	3,561	1,375	1,019	1,095
Exported or sold for export..	7,518	..	2,893	4,998	4,205	5,744
Stocks on hand at end of year	362	241	445	284	633	447
Total Disposals and Stocks	9,674	6,648	6,899	6,657	5,857	7,286
LEAD (tons).						
Stocks from previous year ..	10,290	17,418	24,726	(a)5,028	5,861	8,635
Production for year ..	199,437	137,459	158,548	159,497	151,753	161,572
Total Available Supply ..	209,727	154,877	183,274	164,525	157,614	170,207
Sold to Australian consumers	32,217	42,040	33,242	34,774	40,908	43,661
Exported or sold for export	164,684	88,111	138,378	123,890	108,071	122,426
Stocks on hand at end of year	12,826	24,726	11,654	(a)5,861	8,635	4,120
Total Disposals and Stocks	209,727	154,877	183,274	164,525	157,614	170,207
ZINC (tons).						
Stocks from previous year ..	3,225	4,786	531	3,685	5,879	4,581
Production for year ..	71,220	76,316	69,421	81,312	80,956	83,652
Total Available Supply ..	74,445	81,102	69,952	84,997	86,835	88,233
Sold to Australian consumers	31,088	35,984	47,442	42,018	44,024	45,141
Exported or sold for export	43,137	44,587	18,825	37,100	38,230	38,558
Stocks on hand at end of year	220	531	3,685	5,879	4,581	4,534
Total Disposals and Stocks	74,445	81,102	69,952	84,997	86,835	88,233

(a) Prior to 1948 stock on hand represented physical stock; for the year 1948 this figure represents unsold stock.

3. **World Production.**—The estimated world production of silver, lead and zinc during the years 1938 and 1945 to 1949, as derived from statistics compiled by the American Bureau of Metal Statistics, is shown in the following tables.

SILVER, LEAD AND ZINC: WORLD PRODUCTION.

1938.	1945.(*a*)	1946.(*a*)	1947.(*a*)	1948.(*a*)	1949.(*a*)
SILVER ('000 fine oz.).					
267,765	151,173	131,177	144,292	(*b*) 146,344	(*b*) 180,000
LEAD (tons of 2,240 lb.).					
1,677,258	1,123,319	1,132,305	1,273,361	1,355,246	(*b*) 1,460,367
ZINC (tons of 2,240 lb.).					
1,920,000	1,525,006	1,549,508	1,671,007	1,767,809	(*b*) 1,818,879

(*a*) Output of reporting countries. (*b*) Subject to revision.

4. **Silver, Lead and Zinc Production in Principal Countries, 1949.**—The following table shows particulars of silver, lead and zinc production (*mine basis*) in principal producing countries, according to data published by the American Bureau of Metal Statistics.

SILVER, LEAD AND ZINC: MINE PRODUCTION IN PRINCIPAL COUNTRIES, 1949.

Country.	Production.	Country.	Production.
SILVER ('000 fine oz.).			
Mexico	49,454	Bolivia	6,623
United States of America	34,559	Belgian Congo	4,549
Canada(*a*)	17,641	Japan	3,591
British India (excluding Burma)	14,749	Yugoslavia	(*c*) 2,500
Peru	10,609	Argentina	1,249
Australia	**9,849**	Union of South Africa	1,159
U.S.S.R. (Russia)	(*b*) 7,000	Chile	800
Germany	(*c*) 7,000		

(*a*) Includes Newfoundland. (*b*) Year 1940. (*c*) Year 1939.

Country.	Production.	Country.	Production.
LEAD (tons of 2,240 lb.).			
United States of America	365,989	French Morocco	36,251
Mexico	229,987	Italy	34,415
Australia	**213,491**	South-West Africa	31,471
Canada	142,656	Spain	28,985
U.S.S.R. (Russia)	(*a*) 88,600	Bolivia	25,936
Yugoslavia	71,071	Sweden	23,522
Peru	64,324	Argentina	17,752
Western Germany	40,298		

(*a*) Estimated.

SILVER, LEAD AND ZINC: MINE PRODUCTION IN PRINCIPAL COUNTRIES, 1949—*continued.*

Country.	Production.	Country.	Production.
ZINC (tons of 2,240 lb.).			
United States of America	529,645	Belgian Congo	54,544
Canada	257,377	Spain	49,088
Mexico	188,554	Japan	43,613
Australia	**131,998**	Yugoslavia	36,000
U.S.S.R. (Russia)	(*a*)108,000	Sweden	34,603
Peru	70,898	Rhodesia..	22,850
Italy	60,759	Bolivia	17,350
Western Germany	56,905		

(*a*) Estimated.

5. **Prices of Silver, Lead and Zinc.**—In view of the close association in Australia, particularly in New South Wales, of ores containing these metals, relevant particulars of the prices of each of the metals have been included in the following table. The table shows average prices in Australia and on the London Metal Exchange during the years 1938 and 1946 to 1950. Lead and zinc prices have been controlled in the United Kingdom and Australia since the outbreak of war in 1939. Silver prices have not been controlled.

PRICES OF SILVER, LEAD AND ZINC.

(£ s. d.)

Metal.	1938.	1946.	1947.	1948.	1949.	1950.
Australian Prices, in Australian currency—						
Silver, per fine oz.(*a*) ..	0 2 2.0	0 5 0.8	0 4 7.6	0 4 8.4	0 5 1.6	0 6 9.2
Lead, per ton*b*	*c*22 0 0	22 0 0	22 0 0	22 0 0	35 0 0	43 12 7
Zinc, per ton*b*	*c*22 0 0	22 0 0	22 0 0	22 0 0	40 0 0	47 3 10
London Metal Exchange Prices, in sterling—						
Silver, per fine oz. ..	0 1 9.06	0 4 0.7	0 3 8.4	0 3 9.0	0 4 1.2	0 5 4.8
Lead, per ton*b*	15 6 6	48 1 7	85 1 7	95 10 0	103 3 11	106 8 2
Zinc, per ton*b*	14 1 7	43 1 11	70 0 0	80 0 9	87 8 6	119 4 3

(*a*) Silver prices have not been fixed by regulation in Australia, the prices shown representing export parity calculated from London Metal Exchange prices. (*b*) Prices fixed by regulation. (*c*) From February, 1940.

6. **Employment in Silver, Lead and Zinc Mining.**—The average number of persons employed in mining for these metals during each of the years 1938 and 1945 to 1949 is given below :—

SILVER, LEAD AND ZINC MINING: PERSONS EMPLOYED.

Year.	N.S.W.	Q'land.	S. Aust.	W. Aust.	Tas.	Nor. Terr.	Australia.
1938	5,612	530	..	4	421	3	6,570
1945	3,929	34	..	..	417	..	4,380
1946	4,713	1,003	2	5	453	..	6,176
1947	5,331	994	12	..	523	2	6,862
1948	5,918	1,411	17	114	577	6	8,043
1949	6,052	1,285	32	135	616	6	8,126

§ 4. Copper.

1. **Production.**—Copper is widely distributed throughout Australia. However, the principal producing States are at present Tasmania, Queensland and New South Wales, in that order.

The values of the local production, as reported and credited to the mineral industry for the years 1938 and 1945 to 1949, are shown hereunder. Quantities for Australia as a whole, as returned by the several State Mines Departments, are appended at the foot of the table :—

COPPER : PRODUCTION.

State.	1938.	1945.	1946.	1947.	1948.	1949.
	£	£	£	£	£	£
New South Wales ..	87,905	305,000	344,682	290,905	377,250	433,363
Queensland.. ..	203,967	1,500,662	648,122	338,508	475,548	758,374
South Australia ..	15,333	11,674	..	..	502	394
Western Australia ..	1,275	364	105	6,071	259	3,451
Tasmania	580,238	463,294	716,212	1,057,825	881,363	735,365
Northern Territory ..	4,362	3,811	6,282	..	7,370	145,839
Australia	893,080	2,284,805	1,715,403	1,693,309	1,742,292	2,076,786
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
Ingot, Matte, etc. ..	18,751	25,850	19,160	14,040	12,782	17,405
Ore and Concentrates	935					

Particulars of the copper *content* of ores and concentrates produced in each producing State and the Northern Territory, as published by the Australian Mines and Metals Association for the years 1938 and 1945 to 1949, are shown in the table below.

COPPER CONTENT OF ORES AND CONCENTRATES PRODUCED.

(Tons).

State.	1938.	1945.	1946.	1947.	1948.	1949.
New South Wales ..	1,963	1,830	1,768	2,391	2,515	2,453
Queensland.. ..	4,458	15,007	6,481	2,778	3,149	4,924
South Australia ..	254	134	..	..	4	3
Western Australia ..	5	12	1	..	..	5
Tasmania	12,729	7,472	9,380	7,954	6,574	5,229
Northern Territory ..	37	65	125	..	126	848
Australia ..	19,446	24,520	17,755	13,123	12,368	13,462

2. **Sources of Production.**—(i) *New South Wales.* The copper content of ores and concentrates produced in New South Wales in 1949 amounted to 2,453 tons. The principal sources of this production were Broken Hill, New Occidental (Cobar) and Captain's Flat ores.

(ii) *Queensland.* In 1949 the yield of metallic copper in this State amounted to 4,924 tons compared with 3,149 tons in 1948 and 2,778 tons in 1947. The bulk of the production in 1949 came from Mt. Morgan (3,126 tons) while 1,588 tons represented the copper content of copper-lead dross from Mt. Isa Mines, treated overseas.

A copper mill and smelter is under construction at Mt. Isa for the purpose of operating on copper ores at that site. Copper was produced from copper ore at Mt. Isa during the 1939–45 War, but production was suspended in 1946 and operations since have been confined to silver-lead-zinc ores.

(iii) *South Australia.* Deposits of copper are found over a large portion of South Australia, and its total production to date exceeds that of any other State, notwithtanding that output has diminished to negligible dimensions since the exhaustion of the ore reserves on the principal copper fields. No production was recorded in 1946 or 1947, while in 1948 and 1949 only 4 and 3 tons respectively, of metallic copper were produced.

(iv) *Western Australia.* The ore sent to smelters in 1949 amounted to 49 tons containing 4.8 tons of metal, valued at £630. In the same year carbonate ores for use as fertilizers amounted to 254 tons, valued at £2,821.

(v) *Tasmania.* The quantity of copper produced in Tasmania during 1949 was 5,229 tons, valued at £735,365, the Mount Lyell Mining and Railway Co. Ltd. accounting for the greater part of the production. Copper in concentrates produced by this company in 1949 was 7,940 tons, but much of this remained unsmelted at the end of the year. Output of cathode copper was 4,430 tons in 1949, while production of blister copper was seriously affected by shortage of smelting coke from Newcastle and Port Kembla during the coal strike.

(vi) *Northern Territory.* Copper has been found at various places in the Territory. In 1947 there was no production, but during 1946 279 tons were produced compared with 96 tons in 1939. In 1948 and 1949 281 tons and 4,492 tons, respectively, of ore were mined. The large increase in 1949 was due to an active developmental programme carried out at Barrow Creek and Jervois Range.

3. **Production, Sales and Stocks of Refined Copper.**—In the following table, details of the production, sales and stocks of *refined* copper, as compiled by the Australian Mines and Metals Association, are given for the years indicated. Comparable figures for the year 1938 are not available.

REFINED COPPER: PRODUCTION, SALES AND STOCKS, AUSTRALIA.

(Tons.)

Particulars.	1939.	1945.	1946.	1947.	1948.	1949.	1950.
Stocks from previous year . .	1,342	800	2,611	1,313	409	391	361
Production for year . .	17,867	20,498	22,659	19,505	11,389	9,858	13,509
Total Available Supply . .	19,209	21,298	25,270	20,818	11,798	10,249	13,870
Sold to Australian consumers	18,808	18,687	22,957	20,409	11,407	9,884	11,910
Exported or sold for export	100	. .	1,000	. .	. .	4	. .
Stocks on hand at end of year	301	2,611	1,313	409	391	361	1,960
Total Disposals and Stocks	19,209	21,298	25,270	20,818	11,798	10,249	13,870

The particulars above relate to copper refined from Australian ores. In recent years, local demand for copper has considerably exceeded Australian production and substantial quantities of copper have been imported. A large proportion of the imports in 1947–48 and later years has comprised blister copper imported mainly from South Africa and refined in Australia. Recorded imports of "pigs, ingots and other refinery shapes" (mainly blister copper) in 1949–50 were 16,369 tons.

4. **World Production of Copper.**—The world's estimated production of copper during the years 1938 and 1946 to 1950 is shown below.

COPPER : WORLD PRODUCTION.

(Tons of 2,240 lb.)

1938.	1946.	1947.	1948.	1949.	1950.
2,020,000	1,811,000	2,218,000	2,302,000	2,246,223	(a) 2,465,000

(a) Subject to revision.

The yields in 1950 from the principal copper-producing countries reporting, as published in the *Year Book of the American Bureau of Metal Statistics*, were as follows :—

COPPER : PRODUCTION IN PRINCIPAL COUNTRIES, 1950.

(Tons of 2,240 lb.)

Country.	Production.	Country.	Production.
United States of America ..	817,362	Union of South Africa ..	32,900
Chile	357,024	Cyprus	28,468
Rhodesia	280,883	Peru	27,412
Canada(*a*)	233,852	Cuba	20,235
Russia	(*b*) 214,000	Finland	16,958
Belgian Congo	173,140	Sweden	15,845
Mexico	58,273	Norway	15,156
Yugoslavia	39,400	**Australia**	**14,905**
Japan	38,701	Turkey	11,422

(*a*) Includes Newfoundland. (*b*) Estimated.

During 1950 the share of the United States of America in the world's copper production amounted to 41.2 per cent. while the Australian proportion was less than 1 per cent.

5. **Prices.**—Since the outbreak of war in 1939, the price of copper in Australia and the United Kingdom has been fixed by Regulation. Details of the average price for the years shown are given in terms of Australian currency and sterling in the following table :—

AVERAGE PRICE PER TON OF ELECTROLYTIC COPPER IN AUSTRALIA AND UNITED KINGDOM.

(£ s. d.)

Country.	December, 1939.	1946.	1947.	1948.	1949.	1950.
Australia — in Aust. currency*a*	63 17 6	95 0 0	123 5 9	140 0 0	167 19 5	189 1 8
United Kingdom —in Sterling	62 0 0	77 4 0	130 12 4	134 0 0	133 1 11	178 17 1

(*a*) *Ex* works Port Kembla.

6. **Employment in Copper-mining.**—The number of persons employed in copper-mining, as recorded by Mines Departments for each of the years 1938 and 1945 to 1949, was as follows :—

COPPER-MINING : PERSONS EMPLOYED.

Year.	N.S.W.	Q'land.	S. Aust.	W. Aust.	Tas.	Nor. Terr.	Australia.
1938	13	213	67	4	1,015	5	1,317
1945	145	814	3	2	738	5	1,707
1946	134	59	11	1	709	9	923
1947	184	48	..	2	733	15	982
1948	187	45	11	..	746	13	1,002
1949	136	57	14	3	757	32	999

In 1917 over 9,000 persons were engaged in copper-mining.

§ 5. Tin.

1. **Production.**—The values of the production of tin, as reported to the Mines Departments in producing States during the years 1938 and 1945 to 1949, are shown in the following table. A separate line is appended showing the production of *refined* tin from ores and concentrates smelted, as recorded by the Australian Mines and Metals Association for the years indicated.

TIN : PRODUCTION.

State.	1938.	1945.	1946.	1947.	1948.	1949.
	£	£	£	£	£	£
New South Wales ..	286,768	291,788	257,153	246,423	302,045	261,067
Victoria	28,650	9,869	14,917	25,397	20,695	20,109
Queensland.. ..	141,547	207,948	220,901	390,833	224,579	396,412
Western Australia ..	7,421	4,370	5,838	5,565	12,985	13,079
Tasmania	244,037	240,369	240,584	353,045	427,372	380,942
Northern Territory ..	3,205	5,026	3,228	4,698	12,055	10,138
Total ..	711,628	759,370	742,621	1,025,961	999,731	1,081,747
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
Refined Tin ..	3,229	2,359	2,225	2,371	1,885	1,955

2. **Sources of Production.**—(i) *New South Wales.* Production of tin concentrates in 1949 was stated at 616 tons, valued at £261,067, compared with 760 tons, valued at £302,045 in 1948. A large proportion of the output in this State is obtained in normal years by dredging and sluicing, principally in the New England district.

(ii) *Victoria.* The production of tin in this State is obtained solely as a by-product from the gold dredging operations at Eldorado. The production in 1949 amounted to 40 tons of concentrates, valued at £20,109, compared with 54 tons, valued at £20,695, in 1948.

(iii) *Queensland.* The chief producing districts in Queensland during 1949 were Herberton, 923 tons of concentrates; Cooktown, 37 tons; Stanthorpe, 33 tons; Chillagoe, 20 tons; and Kangaroo Hills, 33 tons. The total production in 1949 amounted to 1,051 tons, valued at £396,412, compared with 683 tons, valued at £224,579, in 1948. It is interesting to compare these production figures with those recorded in the early years of this century in this State when the output ranged between 2,000 and 5,000 tons per annum.

(iv) *Western Australia.* The quantity of tin concentrates reported in this State in 1949 amounted to 35 tons, valued at £13,079, and was obtained mainly in the Pilbara and Greenbushes fields.

(v) *Tasmania.* For 1949 the output amounted to 883 tons of tin concentrates, valued at £380,942, a decrease of 146 tons on the output of the previous year.

(vi) *Northern Territory.* The production for 1949 amounted to 27 tons of concentrates, valued at £10,138, compared with 33 tons of concentrates valued at £12,055 produced during 1948.

3. **World Production.**—The world's production of tin ore, *in terms of metal*, during each of the years 1938 and 1944 to 1949 was as follows :—

TIN : WORLD PRODUCTION.(*a*)

(Tons of 2,240 lb.)

1938.	1944.	1945.	1946.	1947.	1948.	1949.
148,649	99,700	87,700	88,800	112,200	151,600	162,000

(*a*) As reported by the International Tin Study Group and United States of America Bureau of Mines.

The production of tin reached its maximum in 1941 when 241,400 tons were recorded. The following are the chief producing countries of the world :—Malayan Union, Bolivia, Indonesia, Belgian Congo and Nigeria. Normally these countries produce about three-quarters of the total production.

The production of tin ore, in *terms of metal*, for the principal producing countries in 1949 were as follows :—

TIN : PRODUCTION IN PRINCIPAL COUNTRIES, 1949.

(Tons of 2,240 lb.)

Country.	Production.	Country.	Production.
Malayan Union	54,910	**Australia**	**1,955**
Bolivia	34,123	Burma	1,906
Indonesia	28,965	Portugal	1,400
Belgian Congo	13,539	United Kingdom	1,217
Nigeria	8,823	Union of South Africa ..	465
Thailand (Siam)	7,817	Mexico	309
China	4,200	Spain	300

Australia's share of the world's tin production in 1949 was about 1.2 per cent.

4. **Prices.**—At the outbreak of war in September, 1939, the price of tin in Australia and London was fixed by Regulation. London control of tin prices ceased on 14th November, 1949, while the Australian price is still controlled. Details of the movement in average prices for the years shown are given in terms of Australian currency and sterling in the following table:—

AVERAGE PRICE PER TON OF TIN IN AUSTRALIA AND UNITED KINGDOM.
(£ s. d.)

Country.	December, 1939.	1946.	1947.	1948.	1949.	1950.
Australia—in Aust. currency	*a*299 0 0	376 0 0	438 15 0	577 7 0	620 0 0	725 5 9
United Kingdom —in sterling..	*b*271 0 0	*b*336 2 10	*b*425 18 7	*b*548 1 11	*b*599 16 1	*c*745 16 9

(*a*) *Ex* smelters for sales of 10 cwt. or more or in ingots of 70 lb. or more. (*b*) Average official prices for standard tin. (*c*) Tin, standard, spot.

5. **Employment in Tin-mining.**—The number of persons employed in tin-mining during the years 1938 and 1945 to 1949 was as follows:—

TIN-MINING: PERSONS EMPLOYED.

Year.	N.S.W.	Victoria. (*a*)	Q'land.	W. Aust.	Tas.	Nor. Terr.	Australia.
1938	1,440	5	1,263	73	1,123	15	3,919
1945	814	4	465	13	736	(*b*) 48	2,080
1946	778	..	462	10	695	49	1,994
1947	523	..	528	9	627	52	1,739
1948	534	..	480	11	577	63	1,665
1949	548	..	515	24	576	82	1,745

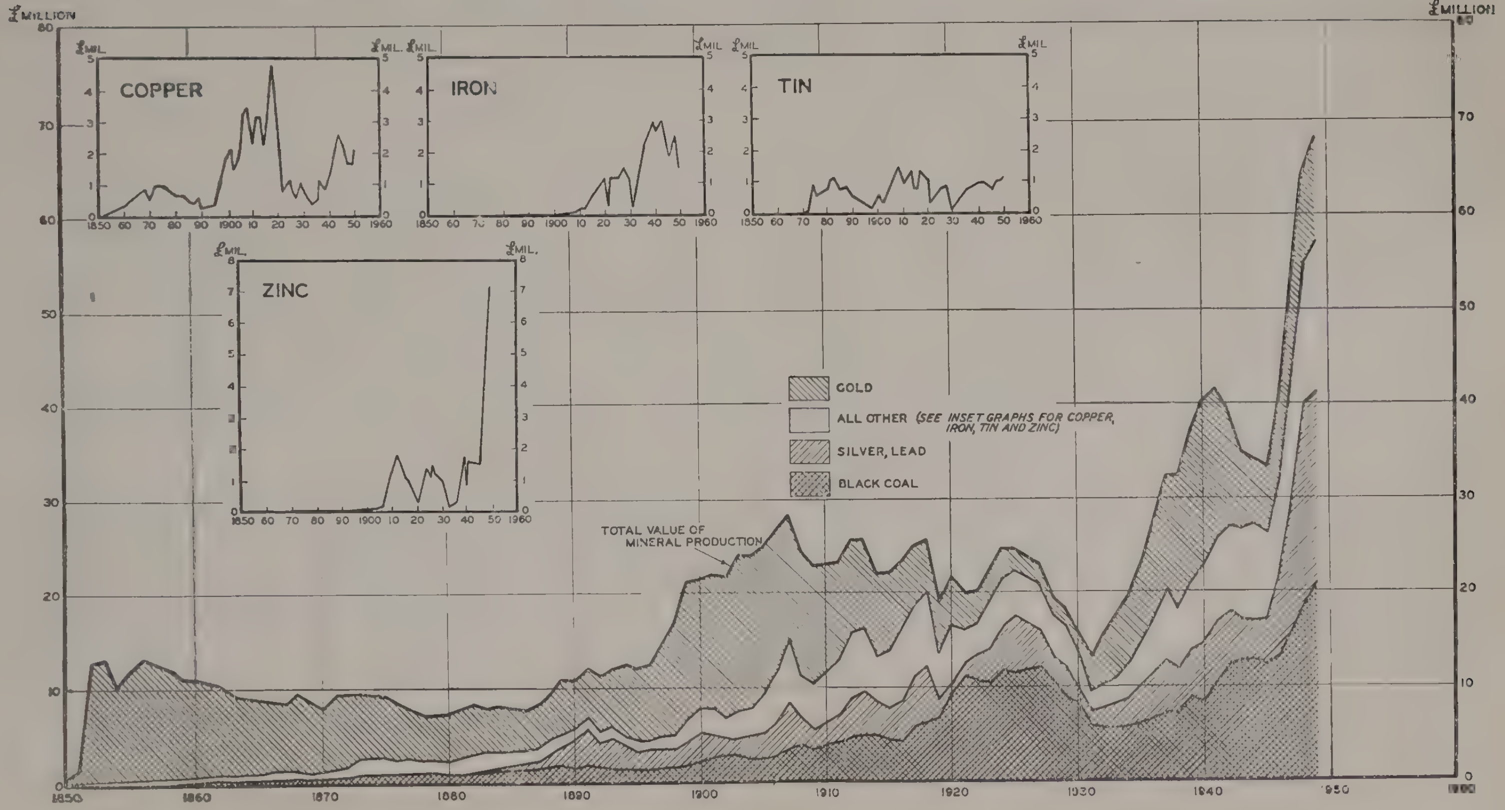
(*a*) The tin produced in Victoria was raised by a dredging company operating primarily for gold. (*b*) Includes some engaged in mining for tantalite.

§ 6. Iron.

1. **General.**—Although iron ore is widely distributed throughout Australia, the only known ore bodies of large extent and high grade which are easy of access are those situated at Iron Knob, South Australia and at Yampi Sound, Western Australia. Estimates of the reserves at these centres place the quantities available at approximately 150 million tons and 100 million tons respectively. Bearing in mind the expansion of the iron industry in Australia, and the limitations of these reserves, the Commonwealth Government prohibited the export of iron ore from 1st July, 1938. A survey of the iron ore resources of Australia undertaken by the Commonwealth Geologist was completed at the end of 1940.

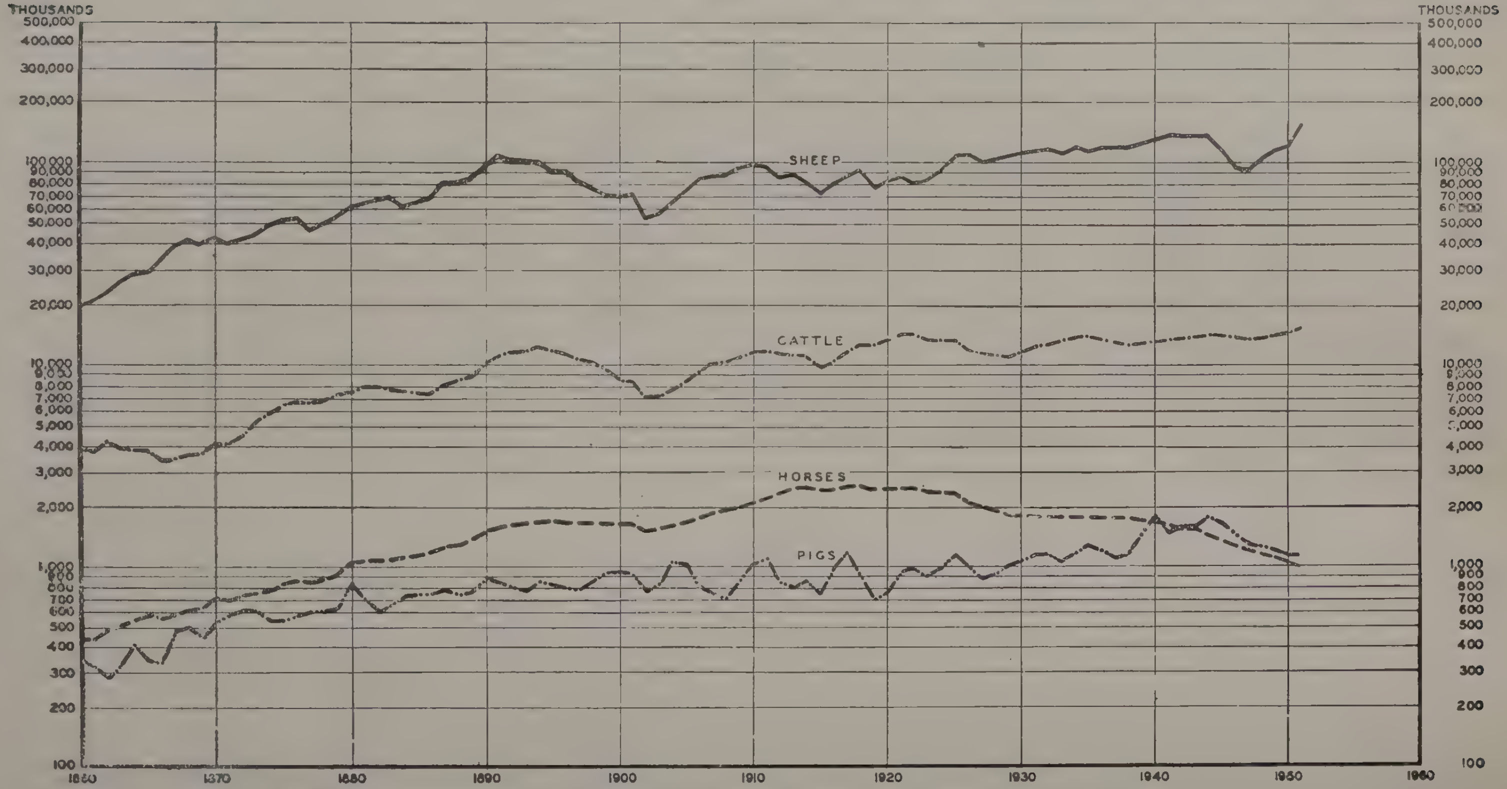
2. **Production.**—(i) *New South Wales.* The production in 1935 of pig-iron from ores mined in New South Wales amounted to 4,580 tons, valued at £18,320. No iron ores were produced from 1935 until 1941, when 202,180 tons of ore were mined. In 1942, 375,297 tons were mined, but only 86,185 tons in 1945. Since that year there has been no iron-ore mined in this State for conversion into pig-iron. For many years the chief source of supply has been South Australia.

VALUE OF PRINCIPAL MINERALS PRODUCED: AUSTRALIA, 1850 TO 1949



LIVESTOCK: AUSTRALIA, 1860 TO 1951

RATIO GRAPH



NOTE:- VERTICAL SCALE IS LOGARITHMIC, AND THE CURVES RISE AND FALL ACCORDING TO RATE OF INCREASE OR DECREASE, ACTUAL NUMBERS ARE INDICATED BY SCALE.

Small quantities of iron oxide produced in New South Wales are used by the various gas-works for purifying gas, and also in the manufacture of paper, and for pigments. These supplies are drawn chiefly from the deposits in the Port Macquarie Division. During 1949, 10,313 tons of oxide, valued at £10,149, were won.

(ii) *Queensland.* Extensive deposits of iron ore are known to exist in Queensland. Their location and size, however, in comparison with the more favourable deposits of South Australia and Western Australia, preclude their exploitation. The output of 2,101 tons, valued at £4,662, for 1949 came mainly from the Biggenden district.

(iii) *South Australia.* The production from the deposits worked by the Broken Hill Pty. Co. Ltd. at Iron Knob reached its maximum in 1939, when 2,571,759 tons of ore, valued at £2,957,523, were raised. The production of 1,447,731 tons, valued at £1,465,005, for 1949 was below normal post-war output. This decrease was caused by an industrial dispute in South Australia followed by a coal strike in New South Wales in the same year.

(iv) *Western Australia.* The development of the deposits at Yampi Sound was discontinued in 1938 as a result of the embargo on exports. However, in 1942, production of iron ore was reported for the first time since 1938 ; it amounted to 150 tons, valued at £225. Production in 1943 amounted to 84 tons, valued at £128, but up to 1947 no further production had been recorded.

Developmental work at the iron ore deposits on Cockatoo Island in Yampi Sound reached a climax on 24th July, 1951, when one specially designed vessel of the Broken Hill Proprietary Co. Ltd. left the island with 10,384 tons of ore for Port Kembla, New South Wales.

The production of pig-iron was commenced at Wundowie in Western Australia in January, 1948 under the direction of the State Department of Industrial Development. The ore used is obtained from the local deposits and converted to pig-iron by the use of charcoal burnt from timber obtained in the same locality. The production, which amounted to 771 tons for the six months ended June, 1948, had grown to 7,727 tons of pig iron for the year 1950. This, in addition to meeting local requirements, provided a small quantity for export to the eastern States.

The whole iron pyrites production of Western Australia is won at the Iron King and Norseman mines and is railed, in the form of ores and concentrates, to superphosphate manufacturers at Bassendean and Bayswater on the coast.

(v) *Tasmania.* There has been no production of ironstone in Tasmania since 1943 when 7 tons, valued at £14 were produced. The production of pyrites, which in 1950–51 amounted to 55,604 tons, valued at £111,549, is not included in the mineral returns, but is credited to the manufacturing industry, as it is a by-product from the flotation of copper ore at Mount Lyell. This product is exported to the mainland, where the sulphur contents have displaced imported sulphur in the manufacture of chemical fertilizers.

Reference to the iron ore deposits in the various States appears in preceding issues of the Official Year Book (*see* No. 22, pp. 777–9).

3. **Iron and Steel Bounties.**—During 1948–49 the bounties paid under the Bounties Acts on articles manufactured from locally produced materials were as follows :—Wire-netting, nil ; traction engines, £37,146. Corresponding amounts paid during 1947–48 were £321 and £19,978 respectively.

4. **Production of Iron and Steel in Principal Countries.**—(i) *General.* Particulars of the production in the principal countries during the years 1938, 1948 and 1949, according to figures published by the Imperial Institute and the Statistical Office of the United Nations, are shown in the next table.

PIG-IRON AND STEEL : PRODUCTION IN PRINCIPAL COUNTRIES.

('000 Tons of 2,240 lb.)

Country.	Pig-iron and Ferro-alloys.			Steel Ingots and Castings.		
	1938.	1948.	1949.	1938.	1948.	1949.
United States America	19,161	54,312	48,385	28,350	79,120	69,603
U.S.S.R. (Russia) ..	14,756	(*a*)	(*a*)	17,500	(*a*)	(*a*)
United Kingdom ..	6,761	9,269	9,493	10,398	14,877	15,562
France	5,977	6,459	8,206	6,040	7,120	9,009
Germany	17,760	(*b*) 4,593	(*b*) 7,025	22,268	(*b*) 5,467	(*b*) 9,009
Belgium	2,388	3,861	3,684	2,243	3,849	3,778
Japan	2,535	827	1,582	6,367	1,688	3,058
Canada	761	2,102	2,113	1,155	2,857	2,846
Czechoslovakia ..	1,215	(*a*)	(*a*)	1,710	(*a*)	(*a*)
Poland	948	(*a*)	(*a*)	1,527	1,925	2,267
Luxemburg ..	1,526	2,586	2,338	1,514	2,409	2,232
Italy	914	517	438	2,271	2,890	2,019
India	1,571	1,464	1,606	936	1,252	1,358
Sweden	701	780	827	957	1,240	1,346
Australia (*c*) ..	**930**	**1,236**	**1,045**	**1,230**	**1,382**	**1,214**
Austria	542	604	824	663	638	822
Spain	433	528	619	567	614	708
Union of South Africa	290	641	697	341	590	626
Hungary	330	(*a*)	(*a*)	638	(*a*)	(*a*)
Brazil	..	543	491	..	476	599
Mexico	119	279	353	72	264	340
Total—All Countries	81,000	(*d*)90,605	(*d*)89,720	107,600	(*d*)128,622	(*d*)126,339

(*a*) Not available. (*b*) Western Germany. (*c*) Year ended 30th June. (*d*) Incomplete.

The principal producers in Australia are the Broken Hill Pty. Co. Ltd. and the Australian Iron and Steel Ltd., both in New South Wales, the former situated at Newcastle and the latter at Port Kembla. The Broken Hill Pty. Co. Ltd. established a blast furnace at Whyalla in South Australia; this was blown in during May, 1941, and has since continued to operate except for the periods May, 1944 to April, 1946 and April, 1949 to September, 1949.

In Western Australia, the production of pig-iron, under the direction of the State Department of Industrial Development, commenced in January, 1948. The output for the year 1950 amounted to 7,727 tons.

(ii) *Australia.* The production of steel and pig-iron in Australia, of which New South Wales is the main producing State, is shown in the following table for each of the years 1940–41 to 1949–50 inclusive.

PIG-IRON AND STEEL : AUSTRALIAN PRODUCTION.

(Tons.)

Year.	Pig-iron. (*a*)	Steel Ingots.	Blooms and Billets.	Year.	Pig-iron. (*a*)	Steel Ingots.	Blooms and Billets.
1940–41..	1,475,707	1,656,742	1,631,679	1945–46..	906,283	1,061,918	1,036,501
1941–42..	1,557,641	1,699,793	1,699,447	1946–47..	1,143,132	1,312,439	1,255,703
1942–43..	1,399,306	1,632,825	1,583,417	1947–48..	1,235,574	1,343,153	1,221,938
1943–44..	1,305,357	1,527,564	1,393,919	1948–49..	1,044,957	1,178,010	1,101,063
1944–45..	1,117,709	1,356,913	1,236,528	1949–50..	1,097,635	1,217,971	1,103,619

(*a*) Includes pig-iron for castings.

§ 7. Other Metallic Minerals.

1. **Tungsten.**—Tungsten ores occur in all States, and on King Island in Bass Strait. Particulars of the King Island scheelite concentrates are included with Tasmanian production. Important deposits of tungsten ores occur in Queensland, New South Wales, Tasmania and Northern Territory, but production from the other States has been comparatively unimportant. Queensland has the largest total output to date, but its annual production is now much less than formerly. In recent years the largest production has come from Tasmania, followed by Northern Territory. Production during 1938 and the five years 1945 to 1949 is shown in the following table :—

TUNGSTEN CONCENTRATES : PRODUCTION.

Particulars.		1938.	1945.	1946.	1947.	1948.	1949.
			WOLFRAM CONCENTRATES.				
New South Wales	cwt.	1,877	620	240	460	500	140
	£	25,740	9,604	3,859	9,184	9,175	2,400
Queensland ..	cwt.	3,015	2,599	1,295	1,261	1,957	988
	£	30,779	48,176	20,773	28,283	47,351	20,301
Tasmania ..	cwt.	5,982	4,220	3,140	4,020	2,680	5,280
	£	63,348	69,896	44,553	82,928	103,193	100,738
Northern Territory	cwt.	8,694	2,540	1,455	2,020	1,420	1,096
	£	78,277	42,937	21,696	41,020	30,780	20,521
Australia ..	cwt.	19,568	9,979	6,130	7,761	6,557	7,504
	£	198,144	170,613	90,881	161,415	190,499	143,960
			SCHEELITE CONCENTRATES.				
New South Wales	cwt.	184	340	440	300	140	80
	£	2,472	7,111	8,680	6,847	3,408	2,028
Queensland ..	cwt.	13	101	9	156	2	34
	£	93	2,018	98	3,166	38	700
Western Australia	cwt.	..	16	100	120	145	12
	£	..	8,946	1,552	3,840	3,913	219
Tasmania ..	cwt.	611	10,560	12,560	12,620	12,740	16,060
	£	6,193	158,093	165,264	240,006	254,517	272,668
Australia ..	cwt.	808	11,017	13,109	13,196	13,027	16,186
	£	8,758	176,168	175,594	253,859	261,876	275,615

2. **Cadmium and Cobalt.**—Production of cadmium metal began in Australia in 1922 when the electrolytic zinc works at Risdon, Tasmania, came into operation. In Australia, cadmium is produced as a by-product in the treatment of lead and zinc concentrates from ores mined at Broken Hill in New South Wales and Read-Rosebery in Tasmania. In 1938, which is the last year for which relatively complete world production figures are available, Australia produced 196 tons of cadmium, amounting to about five per cent. of the world output.

Cobalt as cobalt oxide is recovered from the treatment of silver-lead-zinc concentrates of Broken Hill and Tasmanian origin in the same way as is cadmium. The production of cobalt and cadmium is shown for the years 1938 and 1945 to 1949 in the following table :—

CADMIUM AND COBALT OXIDE : PRODUCTION.

Year.	Cadmium.				Cobalt Oxide.			
	Extracted in Tasmania from Ores mined in—				Extracted in Tasmania from Ores mined in—			
	New South Wales.	Tasmania.	Total.		New South Wales.	Tasmania.	Total.	
	Cwt.	Cwt.	Cwt.	£	Cwt.	Cwt.	Cwt.	£
1938	2,943	980	3,923	79,406	377	12	389	8,084
1945	3,818	588	4,406	98,671	274	5	279	6,427
1946	3,737	675	4,412	98,823	305	4	309	7,106
1947	3,076	691	3,767	84,335	239	4	243	5,102
1948	3,724	880	4,604	103,145	300	5	305	11,183
1949	3,426	880	4,306	248,653	280	5	285	11,780

The figures shown above do not include the metallic contents of cadmium and cobalt oxide contained in the ores and concentrates exported overseas.

3. **Platinoid Metals.**—(i) *Platinum.* (*a*) *New South Wales.* The deposits worked in the State are situated in the Fifield division, near Parkes, and in the Ballina division. The production in 1945 from all divisions amounted to 2 oz., valued at £22. The total production recorded to the end of 1945 amounted to 20,555 oz., valued at £130,667. There has been no production in New South Wales since that year.

(*b*) *Victoria.* In Gippsland the metal has been found in association with copper and 127 oz. were produced in 1913, but there has been no production in recent years.

(*c*) *Queensland.* Platinum, associated with osmiridium, has been found in the beach sands between Southport and Currumbin, in creeks on the Russell gold-field near Innisfail, and in alluvial deposits on the Gympie gold-field, but no production has been recorded.

(ii) *Osmium, Iridium, etc.* (*a*) *New South Wales.* Small quantities of osmium, iridium and rhodium are found in various localities. Platinum, associated with iridium and osmium, has been found in the washings from the Aberfoil River about 15 miles from Oban, on the beach sands of the northern coast, in the gem sands at Bingara, Mudgee, Bathurst and other places. In some cases, as for example in the beach sands of Ballina, the osmiridium and other platinoid metals amount to as much as 40 per cent. of the platinum, or about 28 per cent. of the whole metallic content. There has been no production in recent years.

(*b*) *Victoria.* In Victoria, iridosmine has been found near Foster, and at Waratah Range, South Gippsland.

(*c*) *Tasmania.* The yield of osmiridium was returned as 99 oz. in 1947, valued at £2,700, compared with the record production in 1925 of 3,365 oz., valued at £103,570. The decrease in later years was largely due to the decline in price from £31 per oz. in 1925 to £15 0s. 4d. per oz. in 1938 (although the price rose to £24 19s. 1d. per oz. in 1940 and reached £27 5s. 5d. in 1947), but the depletion of the known alluvial deposits was also a factor. However, 92 oz., valued at £2,094, was produced in 1948, while in 1949 production dropped to 39 oz., valued at £1,136.

4. **Other.**—Metallic minerals other than those mentioned above, but which are worthy of note are (with particulars of 1949 production shown in brackets) :—Antimony (393 tons of ore and concentrates valued at £25,859) ; Arsenic (33 tons of oxide valued at £983) ; Bismuth (28 cwt. of concentrates valued at £790) ; Manganese (13,089 tons of ore valued at £79,620) ; and Molybdenum (118 cwt. of concentrates valued at £1,567).

§ 8. Coal.

1. **Production in each State.**—An account of the discovery of coal in each State appears in preceding issues of the Official Year Book (*see* No. 3, pp. 515–16). The quantity and value of the production in each State and in Australia during 1915, 1925, 1935, 1938, and for each of the years 1945 to 1950 are shown in the following table :—

BLACK COAL : PRODUCTION.

Year.	N.S.W.	Victoria.(*a*)	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
QUANTITY (tons).							
1915 ..	9,449,008	588,104	1,024,273	..	286,666	64,536	11,412,587
1925 ..	11,396,199	534,246	1,177,173	..	437,461	81,698	13,626,777
1935 ..	8,698,579	476,495	1,051,978	..	537,188	123,714	10,887,954
1938 ..	9,570,930	307,258	1,113,426	..	604,792	83,753	11,680,159
1945 ..	10,176,254	247,297	1,634,746	41,452	543,363	149,077	12,792,189
1946 ..	11,186,383	191,290	1,567,520	135,460	642,287	158,751	13,881,691
1947 ..	11,683,123	173,683	1,883,414	193,351	730,506	167,140	14,831,217
1948 ..	11,721,446	164,906	1,742,396	239,464	732,938	179,393	14,780,543
1949 ..	10,736,098	122,507	1,970,388	344,638	750,594	181,618	14,105,843
1950 ..	12,798,221	126,431	2,320,799	261,337	814,352	222,351	16,543,491
VALUE.(*b*) (£.)							
1915 ..	3,424,630	274,770	409,342	..	137,859	30,418	4,277,019
1925 ..	9,302,515	596,117	1,037,956	..	363,203	70,424	11,370,215
1935 ..	4,887,341	282,253	843,034	..	318,013	86,204	6,416,845
1938 ..	5,652,964	188,101	958,884	..	375,083	61,991	7,237,023
1945 ..	9,451,930	494,690	1,759,311	14,508	572,896	125,719	12,419,054
1946 ..	10,534,914	392,812	1,692,272	47,411	730,104	137,736	13,535,249
1947 ..	12,101,178	299,784	2,237,738	67,777	840,249	154,725	15,701,451
1948 ..	14,938,182	347,687	2,347,065	119,732	880,236	177,652	18,810,554
1949 ..	16,121,554	379,464	2,874,062	172,319	972,245	181,897	20,701,541
1950 ..	22,121,326	382,230	3,562,541	130,669	1,185,038	231,599	27,613,403

(*a*) Excludes brown coal, shown in next table. (*b*) At the pit's mouth.

The figures for Victoria already quoted exclude the quantities and values of brown coal which were as follows :—

BROWN COAL : PRODUCTION IN VICTORIA.

Year.	Quantity.	Value.(*a*)	Year.	Quantity.	Value.(*a*)
	Tons.	£		Tons.	£
1915	2,864	573	1946	5,707,039	706,504
1925	876,468	166,404	1947	6,140,140	937,429
1935	2,221,515	317,444	1948	6,692,291	1,187,715
1938	3,675,450	351,721	1949	7,375,559	1,469,455
1945	5,445,108	641,069	1950	7,327,119	1,706,612

(*a*) Cost of production.

2. **Distribution and Production of Coal in each State.**—(i) *New South Wales.* The coal deposits of New South Wales are the most important and extensively worked in Australia. The principal fields are known as the Northern, Southern and Western, and are situated in the vicinity of Newcastle, Bulli and Lithgow respectively.

The coal from the various districts differs in quality or, geologically speaking, rank—that from the Northern district being especially suitable for gas-making, household purposes and steam, while the product of the Southern and Western districts is essentially a steaming coal. The Permian Coal Measures in the Northern district are being worked extensively in the Hunter River Valley area, particularly in the vicinity of Maitland, Cessnock and, more recently, Muswellbrook. The Northern district of New South Wales is the most important, from the aspect of coal mining, in Australia.

The following table shows the yields in each of the three districts during the five years 1946 to 1950 compared with 1938. Separate details are given respecting coal won underground and from open cuts—

COAL: PRODUCTION IN DISTRICTS OF NEW SOUTH WALES.

District.	1938.	1946.	1947.	1948.	1949.	1950.
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
Northern—Underground ..	6,294,213	7,176,652	7,325,874	7,146,524	6,244,882	7,304,554
Open Cut ..	..	513,449	553,597	635,103	(c) 575,310	931,883
Southern—Underground ..	1,831,408	1,738,058	1,915,899	1,922,467	1,908,034	2,395,160
Open Cut ..	..	..	..	..	..	8,219
Western—Underground ..	1,445,309	1,515,297	1,482,696	1,397,835	1,337,044	1,406,862
Open Cut ..	..	242,927	405,057	619,517	670,828	661,543
Total—Underground ..	9,570,930	10,430,007	10,724,469	10,466,826	9,489,960	11,196,576
Open Cut	..	756,376	958,654	1,254,620	1,246,138	1,601,645
Grand Total	9,570,930	11,186,383	11,683,123	11,721, (	10,736,098	12,798,221
Total Value (a) .. £	5,652,964	10,534,914	12,101,178	14,938,182	16,121,554	22,121,326
Average value per ton(a) ..	11s. 10d.	18s. 9d.	20s. 8½d.	25s. 6d.	30s. 0d.	34s. 0d.

(a) At the pit's mouth. (b) Subject to revision.

Much development has been carried out in recent years on the New South Wales coalfields. Areas receiving particular attention are those in the vicinities of Muswellbrook and Lithgow, where the open-cut mining method is being exploited more fully. Consequently, in 1950, 12,798,000 tons of bituminous and sub-bituminous coal were won, which is 2,062,000 tons more than in 1949, when production was reduced because of the prolonged strike by miners in that year.

Open-cut production accounted for 11.6 per cent. of all coal produced in this State in 1949, and for 12.5 per cent. in 1950, an appreciable advance on the 10.7 per cent. for 1948 and indicative of the extent of the recent development in this sphere.

(ii) *Victoria.* (a) *Black Coal.* During 1950, production of bituminous coal rose by 3,924 tons to a total of 126,431 tons. Of this, 109,988 tons or 87.0 per cent., were won from the State Coal Mines at Wonthaggi in South Gippsland, while the remaining 16,443 tons represent the total production of four small mines at Korumburra, Kileunda, Outtrim and Jumbunna.

The Department of Mines considers that future prospects at the State Coal Mines are doubtful, as seams are becoming increasingly faulted and it is difficult to induce men to work under existing conditions.

The output of black coal in Victoria during each of the five years ended 1950 compared with 1938 was as follows :—

BLACK COAL : PRODUCTION IN VICTORIA.

Year.	Quantities. State Coal-mine.	Quantities. Other Coal-mines.	Quantities. Total.	Total Value. (a)
	Tons.	Tons.	Tons.	£
1938	253,065	54,193	307,258	188,101
1946	169,650	21,640	191,290	392,812
1947	153,236	20,447	173,683	299,784
1948	145,880	21,660	167,540	347,687
1949	108,159	14,348	122,507	379,464
1950	109,988	16,443	126,431	382,230

(a) At the pit's mouth.

(b) *Brown Coal—General.* The mining of brown coal is carried on only in the State of Victoria where extensive deposits exist ; estimates place the available reserves at 27,000 million tons. Large-scale development projects are in progress ; these, when completed, will greatly reduce the dependence on fuel from other States. Brown coal produced in Victoria in 1949 amounted to 7,375,550 tons, of which 6,965,478 tons or 94.4 per cent. was won at the State open cut at Yallourn. During 1949–50, 6,404,059 tons of brown coal were produced by Yallourn, of which 4,075,075 tons went to the Yallourn power station, and 2,328,984 tons to the briquette factory.

Production of Briquettes. The briquetting plant of the State Electricity Commission started operations in November, 1924, and the output, which in 1926 was 95,477 tons, had increased to 180,905 tons in 1930 and to 588,504 tons in 1949–50. Two and a half tons of brown coal are required to make one ton of briquettes.

The table following shows the production and distribution of brown coal, and the production of briquettes in Victoria for the years 1945–46 to 1949–50, compared with 1938–39.

BROWN COAL : PRODUCTION AND UTILIZATION, VICTORIA.
('000 Tons.)

Year.	Total Production.	State Electricity Commission. Brown Coal used as Fuel. Generating Station.	State Electricity Commission. Brown Coal used as Fuel. Briquette Works.	State Electricity Commission. Brown Coal used as Material in Production of Briquettes.	State Electricity Commission. Production of Briquettes.	Brown Coal for other Industries.
1938–39 ..	3,643	2,096	516	1,031	400	..
1945–46 ..	5,534	3,525	641	1,282	493	86
1946–47 ..	5,882	3,667	651	1,303	490	261
1947–48 ..	6,419	3,767	743	1,487	545	414
1948–49 ..	7,027	4,130	733	1,467	559	697
1949–50 ..	7,637	4,408	776	1,553	589	900

(iii) *Queensland.* The distribution of production of coal during the years 1938 and 1946 to 1950 was as follows :—

COAL : PRODUCTION IN QUEENSLAND.

(Tons.)

District.	1938.	1946.	1947.	1948.	1949.	1950.
Bowen	224,778	234,512	267,417	238,487	192,300	213,908
Chillagoe	19,192	22,193	23,907	18,670	..	..
Clermont	88,407	161,777	240,564	216,610	313,124	295,635
Darling Downs ..	76,571	107,555	123,758	117,277	..	..
Eidsvold	..	..	..	..	27,135	40,359
Ipswich	547,901	823,737	967,007	902,411	921,417	1,144,980
Mackay	1,543	..	..	..	2,646	..
Mareeba	..	..	..	..	23,564	25,331
Maryborough ..	77,162	103,929	139,635	132,085	136,008	151,475
Mt. Morgan ..	13,698	31,118	35,586	43,245	144,146	206,886
Rockhampton ..	64,174	82,699	85,540	73,611	76,271	84,970
Roma	..	..	..	..	15,778	18,213
Toowoomba ..	..	..	..	..	98,786	118,235
Warwick	..	..	..	..	19,213	20,807
Total ..	1,113,426	1,567,520	1,883,414	1,742,396	1,970,388	2,320,799

The production of 2,320,799 tons in 1950 represents the highest annual production to date.

(iv) *South Australia.* Coal mined in South Australia is won by open cut methods at Leigh Creek, some 380 miles by rail north of Adelaide. This important deposit yields a low grade sub-bituminous coal of Triassic age, and has known reserves of about 380 million tons. However, this State relies to a great degree on bituminous coal from New South Wales to supplement the demand created by industrial expansion. In its first year of major production in 1944, 34,620 tons were won. However, in 1950, the output had risen to 261,337 tons, valued at £130,669.

Details of production are given in the following table for the years 1946 to 1950.

COAL : PRODUCTION IN SOUTH AUSTRALIA.

Particulars.		1946.	1947.	1948.	1949.	1950.
Quantity ..	tons	135,460	193,351	239,464	344,638	261,337
Value	£	47,411	67,777	119,732	172,319	130,669

(v) *Western Australia.* The only coal deposit which has been developed on a commercial scale is at Collie in the south-west of the State. Collie coal is sub-bituminous in rank. Details of production for the years 1946 to 1950 compared with 1938 are given in the following table :—

COAL : PRODUCTION IN WESTERN AUSTRALIA.

Particulars.		1938.	1946.	1947.	1948.	1949.	1950.
Quantity ..	tons	604,792	642,287	730,506	732,938	750,594	814,352
Value ..	£	375,083	730,104	840,249	880,236	972,245	1,185,038

(vi) *Tasmania.* Two periods of coal formation are represented in Tasmania. The older (Permo-Carboniferous) seams contain fairly high ranking semi-anthracitic coal, with a high sulphur content, but production from these mines represents less than one per cent. of Tasmanian black coal output. The more recent Mesozoic coal of bituminous rank is mined in the north-east of the island, the Cornwall and Mt. Nicholas mines being the most prolific producers. Details of production for the years 1946 to 1950 compared with 1938 are shown in the following table :—

COAL : PRODUCTION IN TASMANIA.

Particulars.		1938.	1946.	1947.	1948.	1949.	1950.
Quantity ..	tons	83,753	158,751	167,140	179,393	181,618	222,351
Value ..	£	61,991	137,736	154,725	177,652	181,897	231,599

(vii) *Australia's Coal Reserves.* The latest available estimate of the actual and probable coal reserves of Australia is that prepared by the Coal and Lignites Panel of the Power Survey Sectional Committee of the Standards Association of Australia in May, 1950. The following table shows the actual and probable coal reserves as determined by that Committee :—

ACTUAL AND PROBABLE COAL RESERVES OF AUSTRALIA.

('000,000 Tons.)

State.	Rank of Coal.	
	Anthracitic and Bituminous.	Sub-bituminous and Lignitic.
New South Wales	11,770	100
Victoria	33	37,000
Queensland	2,000	67
South Australia	..	650
Western Australia	..	1,000
Tasmania	244	..
Total	(a) 14,000	(a) 39,000

(a) Rounded figures.

3. **Production in Various Countries.**—The total known coal production of the world in 1949 amounted to about 1,600 million tons, towards which Australia contributed about 21 million tons. The following tables show the production of the chief British and foreign countries during each of the three years 1948 to 1950 compared with 1938, as published by the Statistical Office of the United Nations.

COAL: PRODUCTION IN BRITISH COUNTRIES.

('000 Tons of 2,240 lb.)

Country.	Black Coal.				Brown Coal, Lignite.			
	1938.	1948.	1949.	1950.	1938.	1948.	1949.	1950.
United Kingdom ..	227,015	216,237	222,102	223,931	..	..	..	..
India	29,052	30,787	32,481	33,030	..	..	..	..
Union of South Africa ..	16,027	23,934	25,410	26.483	..	..	..	..
Australia	**11,680**	**14,781**	**14,166**	**16,543**	**3,675**	**6,692**	**7,376**	**7,327**
Canada	9,223	15,547	15,899	15,607	3,540	1,463	1,719	2,024
New Zealand	2,090	984	966	961	132	1,878	1,939	1,805
Southern Rhodesia ..	1,027	1,731	1,951	2,158	..	..	..	..

COAL: PRODUCTION IN FOREIGN COUNTRIES.

('000 Tons of 2,240 lb.)

Country.	Black Coal.				Brown Coal, Lignite.			
	1938.	1948.	1949.	1950.	1938.	1948.	1949.	1950.
United States of America	349,684	605,282	442,960	512,861	2,677	2,755	2,761	3,036
Western Germany ..	*b* 183,238	88,434	104,894	112,539	*b* 191,899	65,901	73,424	77,058
Poland	37,502	71,388	75,265	79,252	9	5,121	4,694	(*a*)
France	45,770	43,991	52,026	51,660	1,041	1,865	1,878	1,719
Japan	47,915	34,408	38,675	39,078	(*a*)	2,597	2,122	1,305
Belgium	29,118	27,104	28,299	27,738	..	..	..	..
Czechoslovakia.. ..	15,900	18,033	17,277	18,752	15,779	2,397	2,695	2,795
Netherlands	13,275	11,205	11,888	12,449	168	280	207	195
Spain	5,559	10,595	10,815	11,217	163	1,414	1,341	1,366
Turkey	2,548	4,085	4,255	4,426	143	1,013	1,292	1,167
Chile	2,011	2,268	2,109	2,219	..	..	..	..
Brazil	871	2,061	2,158	1,987	..	..	..	..
Italy	1,505	988	1,122	1,047	886	922	846	793
Mexico	879	1,077	1,089	957	..	..	..	..
Indonesia	1,480	546	673	812	..	..	..	..
Nigeria	374	628	568	604	..	..	..	..
Portugal	303	393	451	433	18	105	113	96
Malaya	494	388	400	429	..	..	..	..
Norway	304	444	463	390	..	..	..	..

(*a*) Not available. (*b*) Pre-war Germany.

World production of coal amounted to 1,440 million tons in 1938; it rose to 1,770 million tons in 1943, but declined to 1,668 million tons in 1948. Of these quantities, those produced in the British Commonwealth totalled 304 million or 21 per cent. in 1938, 286 million or 16 per cent. in 1943 and 307 million tons or 18.4 per cent. in 1948.

4. **Exports.**—(i) *General.* The quantity of coal of Australian production exported to other countries in 1949–50 was 68,404 tons, valued at £206,460, shipped mainly from New South Wales. These figures of oversea exports exclude bunker coal supplied to oversea vessels, which in 1949–50 amounted to 135,059 tons, valued at £418,939. The quantities and values of the oversea exports of Australian coal for the years specified are shown in the following table. Similar details for the coal taken for bunker purposes on oversea vessels are shown below in a separate table.

COAL : OVERSEA EXPORTS, AUSTRALIA.

(EXCLUDING BUNKER COAL.)

Year.	Quantity.	Value.	Year.	Quantity.	Value.
	Tons.	£		Tons.	£
1913 ..	2,098,505	1,121,505	1946–47 ..	44,375	54,754
1921–22 ..	1,028,767	1,099,899	1947–48 ..	67,228	108,733
1931–32 ..	344,015	341,800	1948–49 ..	36,913	97,353
1938–39 ..	382,085	347,054	1949–50 ..	68,404	206,460
1945–46 ..	75,883	92,764			

Australian coal taken for bunker purposes on oversea vessels during the same years was as follows :—

BUNKER COAL SUPPLIED TO OVERSEA VESSELS, AUSTRALIA.

Year.	Quantity.	Value.	Year.	Quantity.	Value.
	Tons.	£		Tons.	£
1913 ..	1,647,870	1,018,375	1946–47 ..	355,428	655,207
1921–22 ..	1,498,035	2,178,101	1947–48 ..	283,354	597,559
1931–32 ..	506,140	534,897	1948–49 ..	293,707	836,117
1938–39 ..	549,453	561,063	1949–50 ..	135,059	418,939
1945–46 ..	228,977	415,167			

(ii) *New South Wales.* The distribution of the total output from New South Wales collieries during the years 1945–46 to 1949–50 compared with 1938–39, according to data compiled by the Government Statistician for that State, was as follows.

COAL : DISTRIBUTION OF OUTPUT, NEW SOUTH WALES.

('000 Tons.)

Year.	Exports.				Local Consumption.	Total.
	Interstate as—		Overseas as—			
	Cargo.	Bunker.	Cargo.	Bunker.		
1938–39 ..	1,860	411	382	517	7,213	10,383
1945–46 ..	2,499	287	75	173	6,994	10,028
1946–47 ..	2,378	290	44	289	8,218	11,219
1947–48 ..	2,537	307	59	234	8,951	12,088
1948–49 ..	2,443	284	31	233	8,624	11,615
1949–50 ..	1,898	231	68	135	8,961	11,293

5. **Consumption in Australia.**—Details of the average annual production of coal and its distribution in Australia are given in the following table for the five years ended 1938–39 and 1948–49, together with similar details of production and distribution for the year 1949–50.

Under normal circumstances the production and consumption of coal move in the same direction, but in times of short supplies or abnormal consumption consumers may be compelled to rely upon accumulated stocks, and, consequently annual figures may move out of alignment. For this reason the following table has been prepared on a five-yearly basis in order to smooth out any variations from the normal.

COAL : PRODUCTION AND UTILIZATION IN AUSTRALIA.

Particulars.	Quantity.			Proportion of Total.		
	Average for five years ended—		1949–50.	Average for five years ended—		1949–50.
	1938–39.	1948–49.		1938–39.	1948–49.	
BLACK COAL.						
	’000 Tons.	’000 Tons.	’000 Tons.	%	%	%
Source of Supplies—						
Production (*a*)	11,169	14,095	14,918	99.72	99.68	96.79
Imports	31	45	494	0.28	0.32	3.21
Total Supplies	11,200	14,140	15,412	100.00	100.00	100.00
Disposal—						
Exported Overseas—						
Bunker	592	274	(*b*) 135	5.29	1.94	0.88
Other	346	83	68	3.09	0.58	0.44
Total	938	357	203	8.38	2.52	1.32
Consumed as fuel in—						
Electric Light and Power Works	1,796	3,190	3,687	16.03	22.56	23.92
Factories (*c*)	2,067	2,392	2,530	18.46	16.91	16.42
Railway Locomotives (*d*)	2,328	3,115	3,099	20.78	22.03	20.11
Total	6,191	8,697	9,316	55.27	61.50	60.45
Consumed as raw material in—						
Gas works	1,111	1,867	1,865	9.92	13.20	12.10
Coke works	1,467	1,807	1,973	13.10	12.78	12.80
Total	2,578	3,674	3,838	23.02	25.98	24.90
Balance available for other consumption and accumulation of stocks (*e*)	1,493	1,412	2,055	13.33	9.99	13.33
Grand Total	11,200	14,140	15,412	100.00	100.00	100.00
BROWN COAL.						
	’000 Tons.	’000 Tons.	’000 Tons.	%	%	%
Production of Brown Coal	3,064	6,022	7,637	100.00	100.00	100.00
Utilization—						
As fuel in Electric Light and Power Works	1,673	3,722	4,408	54.60	61.81	57.72
As fuel and as a raw material by Briquette Works	1,391	2,006	2,317	45.40	33.31	30.34
Recorded consumption as fuel in factories	(*f*)	257	764	(*f*)	4.27	10.00
Balance—Unrecorded consumption, other purposes	(*f*)	37	148	(*f*)	0.61	1.94
Total	3,064	6,022	7,637	100.00	100.00	100.00

(*a*) Includes miners' and colliery coal. (*b*) Incomplete. (*c*) Estimated when details not available. (*d*) Government railways only. (*e*) Includes bunker coal for interstate and intrastate shipping. (*f*) Not available.

In order to meet the greatly increased demands for coal in Australia, arrangements have been made in recent years to import considerable quantities to augment local supplies. The quantity imported in 1949–50 was 493,805 tons.

6. **Coal Value at Pit's Mouth in New South Wales.**—Particulars of the average value at the pit's mouth of the saleable output of coal for each district and for New South Wales as a whole are shown in the following table for the years 1938 and 1946 to 1950, according to figures compiled by the State Statistician. The figures relate to the pit head value (including subsidy). Excise duty operative from 1st November, 1949 is also included.

AVERAGE VALUE(*a*) AT THE PIT'S MOUTH PER TON OF SALEABLE COAL(*b*): NEW SOUTH WALES.

(s. d.)

Year.	Northern District.	Southern District.	Western District.	Average for State.
1938	12 0	14 0	9 6	12 0
1946	18 8	23 1	15 7	18 10
1947	20 11	23 11	16 10	20 9
1948	26 1	29 11	20 6	25 8
1949	31 8	33 4	22 6	30 3
1950	36 5	34 5	29 4	34 11

(*a*) Includes subsidy from 1943 and excise duty from November, 1949. (*b*) "Saleable" output represents "gross" output, less coal used in operating the mines, and miner's coal.

7. **Prices in New South Wales, Great Britain, Canada and the United States of America.**—In the following table the prices of coal in Canada and the United States of America are compared with the average value per ton of coal in New South Wales and Great Britain.

AVERAGE PRICES OF COAL PER TON: NEW SOUTH WALES, GREAT BRITAIN, CANADA AND UNITED STATES OF AMERICA.

Country.	1938.	1944.	1945.	1946.	1947.	1948.	1949.	1950.
	s. d.	*s. d.*	*s. d.*	*s. d.*	*s. d.*	*s. d.*	*s. d.*	*s. d.*
New South Wales—Bituminous(*a*)	12 0	17 10	18 7	18 10	20 9	25 8	30 3	34 11
Great Britain—Deep mined*b*	16 8	31 3	35 0	36 10	40 3	47 2½	47 11	47 9½
	$	$	$	$	$	$	$	$
Canada—Bituminous(*c*) ..	5.417	6.650	6.788	6.980	6.980	6.980	6.980	(*d*)
United States of America—Bituminous (*e*) ..	4.327	5.239	6.356	5.770	6.873	(*f*)8.118	(*f*)8.631	(*f*)8.738

(*a*) Average pit head value per ton of 2,240 lb.; the figures relate to saleable coal and include subsidy from 1943 and excise duty from November, 1949. (*b*) Average value in sterling at the mine per ton of 2,240 lb. (*c*) Wholesale price in Canadian currency per ton of 2,000 lb. (*d*) Not available. (*e*) Wholesale price, car-lots, on tracks, destination, in United States of America currency per ton of 2,000 lb. (*f*) Figures for 1948 to 1950 represent averages for nine months, nine months and ten months respectively. As a result of changes in the basis of compiling the averages, figures are not strictly comparable from year to year.

8. Employment in Coal-mines.—The number of persons employed, both above and below ground, in coal-mines in each of the producing States is given for selected years from 1915 and for the years 1945 to 1950 inclusive :—

COAL-MINES : PERSONS EMPLOYED.

Year.	New South Wales.	Victoria.		Queensland.	South Australia.	Western Australia.	Tasmania.	Total.
		Black.	Brown.					
1915	17,959	1,312	(a)	2,518	..	498	161	22,448
1925	24,049	1,947	646	2,826	..	677	312	30,457
1935	13,337	1,397	615	2,455	..	689	340	18,833
1938	15,815	1,322	444	2,495	..	765	269	21,110
1945	17,427	1,016	584	2,966	100	860	279	23,232
1946	17,448	924	655	2,641	121	955	276	23,020
1947	17,614	860	594	3,337	124	1,032	288	23,849
1948	18,693	824	526	3,323	237	1,064	274	24,941
1949	18,546	787	811	3,390	347	1,044	312	25,237
1950	18,540	777	889	3,495	408	1,099	334	24,653

(a) Included with black coal; production prior to 1925 was of little significance.

The year of maximum employment was 1926 when 31,774 persons were engaged in the coal-mines of Australia. Shortly after that year the industrial depression and a prolonged stoppage of work on one of the principal fields of New South Wales during 1929 and 1930 seriously affected the figures of employment. Since 1933 there has been a gradual increase, but the numbers employed in 1950 were only about three-quarters of the maximum figure already quoted. In New South Wales in 1939, 3,594,000 tons of coal, or 32.1 per cent. of the total output of underground coal, was cut by machinery, compared with 3,819,000 tons or 36.6 per cent. in 1946, 4,150,000 tons or 38.7 per cent. in 1947, 3,805,357 tons or 36.4 per cent, in 1948, 3,364,351 tons or 35.5 per cent. in 1949, and 4,345,836 tons or 38.8 per cent. in 1950. Similar details for other States are not available.

9. Accidents in Coal-mining.—The following table gives the number of persons killed or injured in the coal-mining industry in Australia during 1949, with the proportion per 1,000 employed, a factor which must be reckoned with in any consideration of the degree of risk attending mining operations. Due to the different bases of recording mining accidents in the various States of Australia the figures in the table below are not strictly comparable between States.

COAL-MINING : EMPLOYMENT AND ACCIDENTS, 1949.

State.	Persons Employed in Coal-mining.	No. of Persons.		Proportion per 1,000 Employed.	
		Killed.	Injured.	Killed.	Injured.
New South Wales ..	18,546	(a) 24	(a) 75	1.29	4.04
Victoria(b)	1,598	..	3	..	1.88
Queensland	3,390	..	156	..	46.02
South Australia	347	..	12	..	34.58
Western Australia ..	1,044	1	175	0.96	167.62
Tasmania	312	..	4	..	12.82
Total	25,237	25	425	0.99	16.84

(a) Includes shale. (b) Includes brown coal.

The next table shows for the five-yearly period 1945 to 1949 annual averages respecting the number employed in mining and the number of fatalities, and the proportion of fatalities per 1,000 employed.

COAL-MINING : AVERAGE ANNUAL FATALITIES, 1945 TO 1949.

State.	Average No. of Coal-miners Employed.	Average Annual No. of Fatalities.	Proportion per 1,000 Employed.
New South Wales	17,946	16.0	0.89
Victoria	1,268	1.4	1.10
Queensland	3,131	3.8	1.21
South Australia	185	0.2	1.08
Western Australia	991	0.6	0.61
Tasmania	286	0.2	0.70
Total	23,807	22.2	0.93

10. **Commonwealth Board of Inquiry into the Coal-mining Industry.**—Reference to the appointment in 1945 of the Commonwealth Board of Inquiry, its terms of reference and the report issued in 1946 is given in Official Year Book No. 37, page 842.

11. **Joint Coal Board.**—(i) *General.* Under war-time emergency legislation, the Commonwealth had wide powers to control the production, distribution and price of coal in Australia. Under peace-time conditions, however, the constitutional powers of the Commonwealth were less effective and in order to ensure the maintenance of supplies of coal to meet the peace-time needs of industry it was necessary to seek wider powers.

With this objective in view, the Governments of the Commonwealth and New South Wales, the chief coal-producing State, mutually agreed to create jointly an authority with powers similar to and in some respects wider than those possessed under Commonwealth war-time legislation. Following this agreement, the Joint Coal Board was created and has functioned as from 1st March, 1947.

(ii) *Constitution.* The legislative authority of the Joint Coal Board is contained in the Coal Industry Act No. 40 of 1946 passed by the Commonwealth Parliament and in the Coal Industry Act No. 44 of 1946 passed by the Parliament of New South Wales. Both Acts are identical for all practical purposes except that the New South Wales Act granted to the Board powers to control collieries and compulsorily to requisition and resume land, buildings, plant, machinery and equipment.

(iii) *Powers.* Under Section 14 of the Commonwealth Act and Section 11 of the New South Wales Act, the powers and functions of the Board are stated to include the taking of such action as is necessary or desirable—(*a*) to ensure that coal is produced in the State in such quantities and with such regularity as will meet requirements throughout Australia and in trade with other countries ; (*b*) to ensure that the coal resources of the State are conserved, developed, worked and used to the best advantage in the public interest ; (*c*) to ensure that coal produced in the State is distributed and used in such manner, quantities, classes and grades and at such prices as are calculated best to serve the public interest and secure the economical use of coal and the maintenance of essential services and industrial activities ; and (*d*) to promote the welfare of workers engaged in the coal industry in the State. In addition, the Board has full power with regard to health matters but does not exercise any basic responsibilities as regards safety measures or inspection of mines ; these duties remain the responsibility of the New South Wales Department of Mines.

§ 9. Coke.

1. **General.**—The production of metallurgical coke in Australia was limited to about 250,000 tons per annum prior to the 1914–18 War. This was below local requirements and necessitated an annual import of about 27,000 tons from abroad. By 1920, production had risen to more than 500,000 tons and by 1938–39 it had reached 1,164,873 tons. This increased production permitted an export of 30,000 tons in 1938–39. Imports in the same year were 9,700 tons. In 1949–50 the quantity exported was 2,791 tons, valued at £15,661, of which 2,217 tons, valued at £12,362, went to New Zealand. In the same year 21,269 tons, valued at £125,173, were imported, of which 12,203 tons, valued at £59,411, came from the Union of South Africa.

In addition to metallurgical coke referred to above (which is produced by specialized coke works), considerable quantities of coke are produced in gas works as a by-product of the manufacture of gas. Output in gas works in 1949–50 was 1,094,982 tons compared with 757,046 tons in 1938–39.

In order to avoid duplication with coal values, the returns for coke have not been included in the general tables of mineral production in the early part of this chapter.

2. **Total Production, Australia.**—In the following table, particulars of the production of coke in coke works and gas works in Australia are shown for the years 1938–39 and 1945–46 to 1949–50. Relevant particulars of the output of coke breeze are also shown.

TOTAL COKE PRODUCTION: AUSTRALIA.

(Tons.)

Industry.	1938–39.	1945–46.	1946–47.	1947–48.	1948–49.	1949–50.
			COKE.			
Coke Works ..	1,164,873	986,005	1,197,636	1,384,238	1,150,039	1,182,773
Gas Works ..	757,046	1,027,157	1,072,906	1,170,545	1,181,516	1,094,982
Total ..	1,921,919	2,013,162	2,270,542	2,554,783	2,331,555	2,277,755
			COKE BREEZE.			
Coke Works ..	78,584	(a) 80,466	93,403	(a)111,062	(a) 88,439	87,394
Gas Works ..	35,996	51,845	55,546	60,556	69,160	75,604
Total ..	114,580	132,311	148,949	171,618	157,599	162,998

(a) Includes a small quantity produced in other works.

§ 10. Other By-Products from Coal.

In addition to coke, other products are obtained from the treatment of coal by coke and gas works. Details of some of these are given in the following table.

OTHER BY-PRODUCTS FROM COAL: AUSTRALIA.

Commodity.	1938–39.	1945–46.	1946–47.	1947–48.	1948–49.	1949–50.
	Gals.	Gals.	Gals.	Gals.	Gals.	Gals.
Tar—Crude ..	34,614,313	34,754,021	39,143,025	41,166,231	40,844,166	38,178,353
Refined(a) ..	3,752,201	13,185,119	14,631,470	14,996,193	13,533,750	12,324,454
Tar Oils (crude) ..	1,254,396	3,176,381	3,868,652	4,021,552	5,233,702	3,758,406
Ammoniacal Liquor ..	5,387,638	17,153,833	16,336,785	18,102,385	19,271,830	18,119,657
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
Ammonium Sulphate(a)	24,251	21,823	29,266	39,480	53,247	48,736

(a) Includes production in other works.

§ 11. Shale-oil and Mineral Oil.

1. **Shale-oil.**—(i) *General.* Reference to the deposits of shale and the search for mineral oil in Australia will be found in Official Year Book No. 22, pp. 791–3.

(ii) *New South Wales.* Reference to the establishment of the shale-oil industry in Australia will be found in previous issues of the Official Year Book. In 1937 negotiations were completed between the Commonwealth and New South Wales Governments and the National Oil Proprietary Ltd., by which the latter company undertook to develop the shale-oil industry in the Newnes-Capertee district. The Commonwealth Government agreed to protect the industry by exempting from excise, up to 10 million gallons annually, the Company's output of petrol for a period of 25 years.

Production of petrol from crude oil commenced at Glen Davis, near Newnes in 1940 and a total of 24,501,186 gallons of petrol had been produced to the end of 1950.

In January, 1951, the Commonwealth Government announced that in view of the continued uneconomic operation of the project, its small contribution to Australian petroleum supplies, the doubtful prospect of raising production to a considerably higher figure and the urgent need for miners in black coal production, it would close down the works completely as soon as possible. In September, 1951, the Government appointed a receiver in National Oil Pty. Ltd., the company which has operated this project.

The following table shows the production of oil shale during the years 1943 to 1949 compared with 1940 :—

OIL SHALE : PRODUCTION IN NEW SOUTH WALES.

Year.	Quantity.	Value.	Year.	Quantity.	Value.
	Tons.	£		Tons.	£
1940	43,805	43,805	1946	121,654	139,902
1943	116,875	160,215	1947	138,427	193,798
1944	137,458	165,285	1948	136,352	204,528
1945	123,170	164,648	1949	120,956	181,437

(iii) *Tasmania.* About 38,000 gallons of crude oil were produced in 1934 from shale treated in Tasmania, while the total quantity of oil distilled from shale up to the end of 1934 was set down at 357,000 gallons. The plant owned by the Tasmanite Shale Oil Company has not operated since the end of January, 1935.

Interest in the commercial utilization of oil shales of the Mersey Valley for the extraction of fuel oils has been retarded due to structural and physical conditions for underground mining and the low-grade nature of the shale.

2. **Coal Oil.**—Reference to investigations made into the possibility of establishing plants for the production of oil from coal is made in previous issues of the Official Year Book.

3. **Natural Oil.**—(i) *Australia.* Natural oil has been proved to exist in Queensland, Victoria and Western Australia, the best indications being found in Victoria and Queensland. Many of the conditions favourable to the accumulation of oil in commercial quantities have been shown to be present in Queensland, Western Australia and New South Wales. In the latter State, however, no strong positive evidence of its existence has been recorded.

Reference is made in § 14 below to the assistance afforded by the Commonwealth Government in the search for petroleum oil.

(ii) *Victoria.* There has been a small production of crude oil from Lakes Entrance. For the year ended 31st December, 1950, production was 40,000 gallons. Gravity and aeromagnetic surveys have been carried out by the Bureau of Mineral Resources* in

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* References to this Bureau in this and succeeding paragraphs relate to the Commonwealth Bureau of Mineral Resources, Geology and Geophysics—*see* § 14 para. 1. following.

East Gippsland and it is proposed to extend the gravity surveys and carry out seismic surveys. Geological surveys have been carried out in the Portland–Nelson–Mt. Gambier area of Western Victoria and the eastern part of South Australia by the Departments of Mines of Victoria and South Australia. Geophysical surveys (gravity) were made in Western Victoria by the Bureau of Mineral Resources.

(iii) *Queensland.* A test bore was drilled at Rolleston by Shell (Queensland) Development Pty. Ltd., but was abandoned early in 1951 after igneous rock had been penetrated. The Bureau of Mineral Resources has conducted geophysical surveys in the Comet and Roma areas. In the case of Comet, the Shell company decided against further bores but it is expected that drilling operations will be undertaken at Roma.

(iv) *South Australia.* Under prescribed conditions, the South Australian Government offers a bonus of £5,000 to the person or body corporate which first obtains from a local bore or well 100,000 gallons of crude petroleum containing not less than 90 per cent. of products obtainable by distillation.

Geophysical surveys were undertaken by private interests during 1947, and continued into 1948, in the north-east corner of the State and extending over the border into New South Wales and Queensland, but with little success. Assistance given by the Commonwealth included equipment and a geophysical survey party.

(v) *Western Australia.* Geological and geophysical surveys by the Bureau of Mineral Resources in connexion with the search for oil have been in progress since 1947 in the North West Basin and Desert Basin areas. The deep drilling operation which commenced in 1939 on the Nerrima Dome in the Kimberley district was suspended in 1942, for security reasons, at a depth of 4,271 feet. Operations were resumed in 1948, but were abandoned in 1950. Proposals are under consideration for drilling another bore on the structure.

(vi) *Papua.* After the 1939–45 War, test drilling by the Australasian Petroleum Company Pty. Ltd. was resumed in 1946. At the end of 1950 four bore-holes had been completed and two were in progress, but no oil had been produced. Geological and geophysical surveys and test drilling are being continued by this company and also the Island Exploration Pty. Ltd.

(vii) *General.* During 1939 efforts were made to secure greater uniformity in State legislation governing the search for oil. A draft Bill based on modern legislation in other countries was prepared by the Commonwealth and submitted to the State Governments. As a result amending legislation was passed in Victoria, Queensland, South Australia and Western Australia. There was immediate response to this in Queensland, where an agreement has been reached between the State Government and one of the major oil companies, whereby the company has undertaken to spend up to £400,000 in the search for oil in that State.

Further details of action taken by the Commonwealth Government in connexion with the search for oil will be found in § 14. " Government Aid to Mining, and Mineral Control ".

§ 12. Gems and Gemstones.

1. **Diamonds.**—It is difficult to secure accurate returns in connexion with the production of precious stones, but the yield of diamonds in 1949 in New South Wales was estimated at 5 carats, valued at £15. The majority of diamonds are won in the Inverell district. The total production to the end of 1949 is stated as 206,957 carats, valued at £150,814.

2. **Sapphires.**—The production of sapphires in New South Wales during 1929 was returned as 65 oz., valued at £450, obtained wholly at Sapphire in the Inverell district, From 1941 to 1949 inclusive, a total of 3,970 oz., valued at £2,803, was won, of which 1,200 oz., valued at £600, were recorded in 1941. Production in 1949 was only 10 oz., valued at £5.

In Queensland, the value of gems won in 1948 was £6,059 and in 1949, £4,868. There were about 120 miners operating on the fields during 1934 but only 32 at the end of 1949. Production has declined very considerably since 1920, when the yield was valued at £66,000.

3. **Precious Opal.**—The estimated value of the opal won in New South Wales during 1949 was £1,592. This is not regarded as the total output of the State, however, because in many instances miners, buyers and collectors leave the fields before a record of their production or purchases can be secured. Some very fine stones are sometimes obtained, one weighing 5 ozs. and valued at £300, being found in 1911. Three finds of large stone were made in 1928, the gems weighing 790, 590 and 232 carats respectively and showing a fine adamantine lustre. Occasionally black opals of very fine quality are found, one specimen from the Wallungulla field, weighing 6½ carats, being sold in 1910 for £102, while in the early part of 1920 a specimen realized £600. It is stated that this locality is the only place in the world where the "black" variety of the gem has been found. The total value of opal won in New South Wales since 1890 is estimated at about £1,645,500 but, as pointed out above, the figures are to some extent understated.

In Victoria small quantities of precious opal have been found in the Beechworth district.

The opal bearing district in Queensland stretches over a considerable area of the western interior of the State, from Kynuna and Opalton as far south as Cunnamulla. The yield in 1949 was estimated at £1,200, and up to the end of that year, at about £189,200. These figures are, however, merely approximations, as large quantities of opal, of which no record is obtained, are disposed of privately. The greatest recorded output was for the year 1895, when the yield was valued at £32,750.

Owing to the poor market for gems, production from the Coober Pedy opal field, situated in the Stuart Range in South Australia, fell from £11,056 in 1929 to £1,517 in 1934. The production rose in 1937 to £11,887, but declined to £6,020 in 1939, and rose again to £11,568 in 1941. After a further drop in 1942, to less than £6,000, the value of production rose in 1947 to £61,569, the greatest annual production ever recorded. However, the value of production dropped to £39,798 in 1949. The field is extremely prolific, a large quantity of precious white opal having been raised therefrom, and only a small portion of the known opal-bearing area has been thoroughly tested.

4. **Other Gems.**—Various other gems and precious stones have from time to time been discovered in the different States, the list including agate, amethyst, beryl, chiastolite, emerald, garnet, moonstone, olivine, ruby, topaz, tourmaline, turquoise and zircon. In Western Australia, 609 carats (rough) of emeralds, valued at £278, were produced during 1929 in the Cue district on the Murchison gold-field. The value of the 3,750 carats reported from the same area in 1930 was not ascertainable as there were no sales during the year. There has been no recorded production since 1930. During the three years 1939, 1940 and 1941, 10 tons of beryl ore, valued at £83, were produced in Western Australia. There was no production in 1942, but in the period 1943–49, 1,051 tons were produced, valued at £33,755. The largest production was registered in 1943 when 515 tons were won, valued at £14,564. The most recent production figures show a marked decrease to 35 tons, valued at £2,122, in 1949.

Until recently, beryl was chiefly sought as a gemstone—the emerald variety being particularly valuable. However, research over the past few years has shown that the metal beryllium has wide applications in industrial alloys with copper, aluminium and iron. These alloys possess unusual hardness, tensile strength and resistance.

§ 13. Number Engaged, Wages Paid and Accidents in Mining.

1. **Total Employment in Mining.**—The number of persons engaged in the mining industry in Australia fluctuates according to the season, the price of industrial metals, the state of the labour market, and according to the permanence of new finds and the development of the established mines. During 1949 the number so engaged was as follows :—

NUMBER OF PERSONS ENGAGED IN MINING, 1949.

State.	Number of Persons engaged in Mining for—						Total.
	Gold.	Silver, Lead and Zinc.	Copper.	Tin.	Coal.	Other.	
New South Wales ..	688	6,052	136	548	18,546	1,566	27,536
Victoria..	1,019	..	..	..	a 1,598	241	2,858
Queensland	1,589	1,285	57	515	3,390	330	7,166
South Australia	52	32	14	..	347	1,103	1,548
Western Australia ..	6,800	135	3	24	1,044	496	8,502
Tasmania	9	616	757	576	312	158	2,428
Northern Territory ..	238	6	32	82	..	104	462
Australia	10,395	8,126	999	1,745	25,237	3,998	50,500

(*a*) Includes 811 engaged in mining brown coal.

Included in the figures for " other " in South Australia were 175 engaged in mining iron ore, 87 gypsum miners, 269 salt gatherers, and 70 opal miners. The Tasmanian figures include 137 scheelite miners. The Northern Territory figures include 44 wolfram and 55 mica miners.

The following table shows, at intervals since 1911, the number of persons engaged in mining in each State and the proportion so engaged of the total population :—

NUMBER ENGAGED IN MINING AND PROPORTION PER 100,000 OF POPULATION.

State.	1911.		1921.		1931.	
	Miners engaged.	No. per 100,000 of Population.	Miners engaged.	No. per 100,000 of Population.	Miners engaged.	No. per 100,000 of Population.
New South Wales ..	37,017	2,225	29,701	1,410	30,682	1,200
Victoria	15,986	1,210	5,211	339	6,463	359
Queensland	13,201	2,147	5,847	766	6,753	730
South Australia	6,000	1,457	2,020	406	518	90
Western Australia.. ..	16,596	5,787	7,084	2,122	7,147	1,653
Tasmania	5,247	2,760	3,170	1,486	3,397	1,512
Northern Territory ..	715	21,595	131	3,356	145	2,918
Australia	94,762	2,109	53,164	974	55,105	844

NUMBER ENGAGED IN MINING AND PROPORTION PER 100,000 OF POPULATION—*continued.*

State.	1941.		1948.		1949.	
	Miners engaged.	No. per 100,000 of Population.	Miners engaged.	No. per 100,000 of Population.	Miners engaged.	No. per 100,000 of Population.
New South Wales ..	27,554	984	27,571	910	27,536	884
Victoria	4,839	250	2,484	119	2,858	134
Queensland	6,541	631	7,222	643	7,166	624
South Australia	940	156	1,130	172	1,548	230
Western Australia	14,021	2,958	8,700	1,690	8,502	1,595
Tasmania	2,974	1,237	2,357	891	2,428	899
Northern Territory ..	424	4,125	394	3,233	462	3,428
Australia	57,293	807	49,858	648	50,500	638

The upward movement in the number of miners engaged which commenced in 1930 reached a peak of 998 per 100,000 of population in 1937, but thereafter the ratio declined continuously to the level of 569 in 1945. After the 1939–45 War the ratio increased to 646 in 1947 and remained at much the same level during the next two years.

2. **Wages Paid in Mining.**—Information regarding rates of wages paid in the mining industry is shown in the *Labour Report* issued by this Bureau.

3. **Accidents in Mining, 1949.**—The following table shows particulars of the number of men killed or injured in mining accidents during 1949:—

MINING ACCIDENTS, 1949.

Mining for—	N.S.W.	Victoria.	Q'land	S. Aust.	W. Aust.	Tas.	N.T.	Australia.
KILLED.								
Coal ..	(a) 24	..	..	..	1	..	..	25
Copper ..	..	..	(b) 1	..	..	..	..	1
Gold ..	1	2	2	..	9	..	1	15
Iron ..	..	..	..	..	..	..	..	..
Silver, lead and zinc ..	5	..	2	..	..	1	..	8
Tin	..	..	..	..	..	..	1	1
Other minerals	5	..	..	..	..	..	..	5
Total ..	35	2	5	..	10	1	2	55
INJURED.								
Coal ..	(a) 75	3	156	12	175	4	..	425
Copper ..	..	..	(b) 51	..	..	3	..	54
Gold	16	6	11	..	662	..	2	697
Iron ..	..	..	..	5	..	..	..	5
Silver, lead and zinc ..	23	..	51	..	..	3	..	77
Tin	..	..	5	..	..	6	4	15
Other minerals	13	6	1	7	..	..	..	27
Total ..	127	15	275	24	837	16	6	1,300

(a) Includes shale. (b) Copper and gold.

§ 14. Government Aid to Mining, and Mineral Control.

1. **Aid to Mining.**—(i) *Commonwealth.* (*a*) *General.* The Precious Metals Act 1926, the Gold Bounty Act 1930, the Loan Appropriation (Unemployment Relief) Act 1934, the Northern Australian Survey Act 1934 and the Gold Mining Encouragement Act 1940, mentioned in the previous issue of the Official Year Book, either have become inoperative or have been superseded. The Petroleum Oil Search Act 1936 is still in force. Further expenditure under the Gold Mining Encouragement Act is not contemplated, as an entirely new method of providing financial assistance to the mining industry is in operation, and is described below. Similarly no further expenditure is contemplated under the Petroleum Oil Search Act 1936, except for two projects not yet completed, and the Government policy now is to conduct geological and geophysical surveys of possible oil fields (*see* below).

Applications for financial assistance for the development of mining projects which offer promise of contributing materially to the economic welfare of the Commonwealth may be considered by the Bureau of Mineral Resources and the Treasury after consultation with the State concerned. This policy supersedes that set out in Official Year Book No. 37, page 849—the Australian Mining Council which was to have been set up under the previous policy has not met or fulfilled any of its functions and its creation was not finalized.

The Commonwealth Government in 1948 decided to provide financial assistance to certain gold mines in remote and isolated parts of Western Australia. These mines were experiencing difficulty because income from the fixed price for gold was insufficient to cover higher operating costs due to a number of factors, including the general rise in the level of wages and prices. Before granting assistance, the mine, its financial position and its relation to the economic and social welfare of the district were investigated by officers of the Bureau of Mineral Resources and the Treasury in collaboration with the State Mines Department, and conditions which should be observed in order to obtain financial assistance were laid down. Assistance as decided in 1948 was in the form of periodical payments sufficient to cover the difference between revenue and expenditure and to provide a return of 4 per cent. on the paid-up capital of the Company, but in 1949 this was increased to 6 per cent. At the same time the assistance scheme was extended to enable gold mines in remote areas of other States to participate. The scheme was terminated on the devaluation in September, 1949 of the Australian pound in terms of the United States of America dollar, which had resulted in a rise of £4 14s. 7d. per fine ounce in the Australian price of gold. Officially, the scheme of assistance operated to 31st December, 1950, but, because of the higher gold price, all mines made profits and so did not qualify for the 6 per cent. profit subsidy.

(*b*) *Rewards for discovery of Uranium Ore.* To encourage the search for and discovery of deposits of uranium ore, the Commonwealth Government has approved the granting of monetary rewards. These rewards will be paid as follows :—(1) £1,000 for the discovery of a deposit containing sufficient ore to be of economic importance ; (2) £1,000 for the discovery of a deposit capable of producing 25 tons or more of uranium oxide and £2,000 for each 25 tons in excess of the first 25 tons ; and (3) a maximum of £25,000 for any one deposit.

(*c*) *Bureau of Mineral Resources, Geology and Geophysics.* The Bureau of Mineral Resources, etc. has sections dealing with geology and geophysics, mining engineering, fuel technology and mineral economics. The geological section conducts all surveys required in Commonwealth Territories, detailed and regional surveys in conjunction with or by arrangement with the State Mines Departments, surveys of possible oil-fields in Australia and New Guinea, surveys of mines for which financial assistance is sought, and investigations of deposits of radio-active minerals. The geophysical section conducts investigations throughout Australia and New Guinea connected with the search for metalliferous, radio-active and other mineral deposits ; problems connected with exploration for coal, oil and water ; regional magnetic and gravity surveys ; engineering and military geophysics ; and the operation of geophysical (magnetic and seismic) observations. The Bureau works in close co-operation with the Mines Departments of the States. It has assumed full responsibility for geological and geophysical surveys in Commonwealth Territories, but suitable arrangements have been made to ensure that the local Administrations have the necessary technical advice directly available to them. The Bureau has also assumed full responsibility for scout-boring to prove deposits of coal in New South Wales suitable for working by open-cut methods.

(*d*) *Diamond Drills.* The four diamond drills mentioned in the previous Official Year Book have arrived in Australia and are now in use. Further light drills have been purchased and special equipment for alluvial prospecting has been ordered.

(*e*) *Search for Oil.* No variation has been made in the policy described in Official Year Book No. 37, page 850, regarding the search for petroleum throughout Australia and its Territories. In addition to its activities set out in that Year Book, the Bureau of Mineral Resources, Geology and Geophysics furnishes field laboratories and trained personnel to assist small companies in recording scientific information obtained while drilling for oil. A modern diesel-driven rotary drilling plant has been ordered for deep test-drilling on suitable geological structures.

The Commonwealth Government has encouraged the search for oil in Australia, Papua and New Guinea; details of the efforts made are outlined in previous issues of the Official Year Book. A considerable amount of geological work and test drilling was conducted under the provision of the Petroleum Oil Search Act 1936 and, at the outbreak of the 1939–45 War, two tests were partially completed, one at Oiapu in the Gulf district of Papua and the other at Nerrima in the Kimberley district of Western Australia. At Nerrima the Freney Kimberley Oil Co. (1932) N.L. rejected a Commonwealth offer of financial assistance. The company is now drilling with financial assistance from the Government of Western Australia, using a drilling plant hired from the Commonwealth; technical advice and assistance is also provided by the Commonwealth.

(*f*) *Survey of North Australia.* Reference to this survey which was completed at the end of 1940 appears in Official Year Book No. 35, page 744. A few reports on individual areas remain to be printed.

(*g*) *Mining Industry Advisory Panel.* This panel has not functioned since 1946. The Bureau of Mineral Resources completed the draft of a uniform Act dealing with health and safety in mines, recommended by the Panel. A meeting of the Chief Inspectors of Mines of all States and Territories was held in November, 1950, to consider this draft and considerable progress was made in achieving uniformity. A committee has been set up to advise on non-destructive testing of wire ropes used in the mining industry.

(*h*) *Ore-dressing and mineragraphic investigations.* These investigations are conducted by the Commonwealth Scientific and Industrial Research Organization as required by the industry. Ore-dressing investigations are carried out conjointly with appropriate State institutions, the three laboratory centres being the School of Mines, Kalgoorlie, the School of Mines and Industries, Adelaide, and the University of Melbourne.

The grant of £22,000 mentioned in Official Year Book No. 37, page 851, was expended by 1947; since that year funds to continue the investigations are included in an investigational vote approved annually for the Commonwealth Scientific and Industrial Research Organization. In 1948 the Government expended approximately £5,000 on ore-dressing and £6,100 on mineragraphic investigations.

(*i*) *Petroleum Legislation.* The petroleum ordinances of Papua and New Guinea have been amended and combined in a single ordinance, No. 6 of 1951, entitled Petroleum (Prospecting and Mining) Ordinance 1951.

(ii) *States.* (*a*) *General.* In addition to free assays and determinations of rocks and minerals carried out for prospectors by the Mines Departments of the States and Territories, technical officers of these departments provide advice to the mining industry where required, carry out field examinations of mining prospects, advise on exploration and development, select sites for water supply, and in general give a free technical service to the mining industry.

(*b*) *New South Wales.* State aid to assist metalliferous mining consisted of grants to assist the prospecting and/or mining for gold and minerals and for the purchase, removal and installation of mining plant or equipment. In 1949, this assistance totalled £2,448, the greater part of which was granted to prospect or mine for either tin or gold.

(*c*) *Victoria.* Grants may be made to assist prospecting and development or the purchase of machinery. The Mines Department has 24 stamp batteries in different parts of the State to crush ore for prospectors at nominal rates. Small mining companies may avail themselves of these facilities.

(*d*) *Queensland.* The Mines Department maintains a treatment works for tin ores, etc. at Irvinebank, an assay office at Cloncurry and diamond-drilling plants in several parts of the State. The Venus State Mill at Charters Towers is available for the treatment of gold-bearing ores and another State battery is located at Kidston. In addition, many departmental compressor plants, pumping plants and other mining equipment are provided and made available on hire on the principal mining fields. Financial aid granted to prospectors for 1949 amounted to £15,847, whilst other forms of aid for mining granted by the State amounted to £294,590 for the same period.

(*e*) *South Australia.* During 1940 the Premier announced that assistance would be given to copper mining in the form of financial help towards such development work as was absolutely necessary for a mine to enter upon reasonably continuous production. On 5th November, 1942, the Leigh Creek Coal Act was passed to develop the Leigh Creek Coalfield. As a result of extensive drilling operations, development of open-cut mining was commenced in January, 1943. State aid to mining during 1948 totalled £79,194, of which £14,928 was for coal, £7,074 for copper, £8,394 for gold, and the balance, £48,798, for other minerals. The State maintains batteries and cyanide works at Mount Torrens, Peterborough, Mongolata, Tarcoola and Glenloth, and assays for public purposes are made at the School of Mines.

(*f*) *Western Australia.* Financial aid granted to prospectors and others in 1949 amounted to £26,226; this sum was allotted as follows :—coal, £11,169; gold, £4,420; lead, £2,131; tin, £498; other forms of assistance, £8,008. The Mines Department has about twenty batteries throughout the mining fields where prospectors and others can have their ore treated.

(*g*) *Tasmania.* During 1948 the Department of Mines reported that the policy of assistance to mining was maintained to the extent provided for under the provisions of the Aid to Mining Act but no material advantage was taken thereof. In that year £485 was expended and £314 was repaid against advances previously made.

Other assistance rendered to the industry is provided by a well-equipped metallurgical laboratory at Launceston where ore-dressing and other metallurgical problems can be investigated for the mine-owner, and advice given regarding the most suitable type of plant to install.

(*h*) *Northern Territory.* The Commonwealth Government has maintained a ten-head battery at Tennant Creek for the treatment of ore by miners. Another battery has been leased. A ten-head battery is situated on the Maranboy tin-field and crushes ore for all parties on the field. Assistance has been given to miners on the mica fields to purchase air-compressors and other mining plant on liberal terms. The Commonwealth Government has purchased all mica produced on the fields. Roads and water supply services are provided and maintained for all mines and mineral-producing areas throughout the Territory.

2. **Control of Minerals.**—(i) *Minerals Committee, and Controller of Minerals Production.* With the termination of the war the activities of the Controller of Minerals Production, appointed under the provision of the National Security (Minerals) Regulations, were reduced. In 1948, operations conducted by the Controller were the Dorset Tin Dredge in Tasmania and the acquisition and sale of mica produced in Australia. The Dorset Tin Dredge is in active operation and produces about 150 tons of tin concentrates yearly. It has about ten years of operation in sight.

(ii) *Mica Production.* The Commonwealth Government, through the Department of Supply and Development, operates a Mica Pool which purchases all mica won, thus ensuring the miners of a ready market for their product at fixed prices, and also permits an orderly distribution of mica to the trade. Under a recent Cabinet decision, the Commonwealth Mica Pool will operate until the end of 1953.

(iii) *Control of Exports of Metals and Minerals.* In order to conserve supplies and to direct surpluses to destinations where most needed, export controls were initiated in 1946. Metals, etc., controlled include copper and copper alloys ; iron, steel and scrap ; all non-ferrous scrap ; zinc dross and dust ; antimony metal and concentrates ; metallic tin, tin concentrates and ores ; and pig lead and scrap and manufactured lead.

(iv) *Atomic Energy (Control of Materials) Act* 34 *of* 1946. This Act provides for control of substances which could be used for production or use of atomic energy. It gives the Commonwealth power to acquire such substances in their natural state and in waste materials from mining operations, to carry on mining and other operations necessary for the recovery of such substances, and to pay compensation for such acquisition. It also gives the Commonwealth power to obtain possession of such substances held by any person.

The Act provides for the notification of discovery of any such substances or mineral containing such substance.

CHAPTER XIX.

PASTORAL PRODUCTION.

NOTE.—Values of Australian oversea trade shown throughout this Chapter are expressed as f.o.b. Australian currency, except where otherwise indicated.

§ 1. Initiation and Growth of Pastoral Industry.

1. **General.**—A detailed account of the various enumerations of live stock in Australia made prior to 1860 is given in previous issues of the Year Book. The numbers recorded between 1800 and 1860 are regarded as somewhat defective. Doubtless the growth of population, the expansion in the area settled and the increase in private ownership made it difficult in those early times to secure accurate returns. Since 1860, however, the annual enumerations have been based, with few exceptions, on actual collections made through the agency of the State Police and reliably record the movement in live stock numbers from year to year.

2. **Live Stock Numbers since 1860.**—Particulars concerning the numbers of each of the principal kinds of live stock in Australia at decennial intervals from 1860 to 1930, and from 1939 onwards in single years are given in the following table, and are shown continuously on the graph on page 872.

During the ninety-one years from 1860 to 1951 the live stock of Australia increased considerably, viz. :—Horses, 132 per cent. ; cattle, 284 per cent. ; sheep, 474 per cent. ; and pigs, 223 per cent. The average annual increases which these aggregates represent are as follows :—Horses, 1.03 per cent. ; cattle, 1.49 per cent. ; sheep, 1.94 per cent. ; and pigs, 1.30 per cent.

LIVE STOCK : AUSTRALIA.
('000.)

Year.	Horses.	Cattle.	Sheep.	Pigs.
1860	432	3,958	20,135	351
1870	717	4,276	41,594	543
1880	1,069	7,527	62,184	816
1890	1,522	10,300	97,881	891
1900	1,610	8,640	70,603	950
1910	2,166	11,745	98,066	1,026
1920	2,416	13,500	81,796	764
1930	1,793	11,721	110,568	1,072
1939	1,724	12,862	111,058	1,156
1940	1,699	13,080	119,305	1,455
1941	1,666	13,256	122,694	1,797
1942	1,611	13,561	125,189	1,415
1943 (31st March)	1,518	14,005	124,615	1,563
1944 „ „	1,449	14,184	123,174	1,747
1945 „ „	1,359	14,133	105,371	1,631
1946 „ „	1,265	13,878	96,396	1,426
1947 „ „	1,195	13,427	95,723	1,273
1948 „ „	1,165	13,785	102,559	1,255
1949 „ „	1,115	14,124	108,735	1,196
1950 „ „	1,057	14,640	112,891	1,123
1951 „ „	999	15,229	115,596	1,134

3. **Fluctuations.**—The increases referred to, however, have not been continuous, marked fluctuations having taken place during the period, mainly on account of droughts which have from time to time left their impress on the pastoral history of Australia. These occurred in 1868, 1877, 1883–4, 1892, 1893, 1895, 1901–2, 1912, 1914, 1918, 1919, 1922–23, 1925–26, 1927–28, 1929–30, 1940–41 and 1944–45 to 1946–47.

The years in which the numbers of live stock attained their maxima are as follows :—Horses, 1918 (2,527,000); cattle, 1951 (15,229,000); sheep, 1942 (125,189,000); and pigs, 1941 (1,797,000).

On pages 905–8 there are graphs which show the distribution throughout Australia of beef cattle, dairy cattle, sheep and pigs as at 31st March, 1948.

4. **Minor Classes of Live Stock.**—Excluding Victoria, where the details are not available, the numbers of minor classes of live stock returned for 1941 were as follows :—Goats, 80,366; camels, 2,267; and mules and donkeys, 10,881. Of these, goats were most numerous in Queensland, and camels, mules and donkeys in Western Australia. In the raising of goats, some attention has been devoted to the angora goat and its product (mohair), and upwards of 5,000 angora goats are included in the number shown above. Of these, 1,640 were in New South Wales, 1,000 in Queensland, 1,531 in South Australia, and 284 in Tasmania. Details for later years were not collected.

5. **Net Exports of Principal Pastoral Products.**—The quantities by which the exports of the principal pastoral products of Australia exceeded the imports for the years 1938–39 and 1946–47 to 1949–50 were as follows :—

NET EXPORTS OF PASTORAL PRODUCTS : AUSTRALIA.

Product.	Unit of Quantity.	1938–39.	1946–47.	1947–48.	1948–49.	1949–50.
Animals (living)—						
Cattle	No.	405	670	4,256	940	325
Horses	,,	2,294	617	579	594	750
Sheep	,,	66,739	79,576	78,836	83,975	96,335
Bones	Cwt.	21,497	14,954	31,433	45,032	27,908
Glue-pieces and Sinews ..	,,	− 11,145	− 1,519	− 5,647	− 4,357	−15,650
Glycerine	lb.	78,727	2,411,368	− 14,757	−165,190	312,401
Hair	,,	−1,003,366	−635,592	40,099	− 8,779	−13,094
Hoofs	Cwt.	(a)	7,659	11,694	14,643	9,397
Horns	,,	(a)	5,684	9 991	7,412	7,862
Meats—						
Frozen Beef and Veal (b)	lb.	271,948,548	180,338,464	237,150,090	191,648,948	182,361,271
,, Mutton and Lamb	,,	186,487,551	164,270,349	122,476,343	114,863,908	193,091,750
,, Rabbits and Hares	Pair	(a)	5,385,354	12,684,091	24,530,331	21,859,322
,, Other	lb.	19,588,368	19,514,725	26,677,015	28,362,199	30,083,284
Potted and Concentrated	,,	(a)	1,038,573	1,364,328	1,322,815	930,326
Preserved in Tins, etc. ..	,,	14,778,896	111,547,472	91,410,094	128,820,550	95,580,754
Other (excluding Bacon and Ham)	,,	308,448	1,422,165	1,897,508	4,603,391	4,671,570
Sausage Casings ..	Cwt.	8,673	8,644	7,308	2,524	17,875
Skins—						
Cattle	No.	(a)	− 42,067	30,815	228,532	237,207
Calf	,,	(a)	−187,325	− 43,756	12,973	14,789
Horse	,,	(a)	31,577	31,065	43,482	47,923
Sheep and Lamb ..	,,	(a)	20,447,119	11,828,587	11,969,742	18,302,781
Rabbit	Cwt.	(c) 37,544	118,050	105,335	(c) 87,411	(c) 93,769
Other (including Undressed Furs) ..	No.	(a)	931,512	−1,022,321	−777,932	− 6,717
Tallow	Cwt.	560,241	(d) 73,744	(d) 87,680	(d) 173,225	(d) 407,723
Wool—						
Greasy	lb.	779,781,662	1,014,823,258	764,835,319	976,032,759	1,052,755,607
Scoured, Tops, Noils, Waste ..	,,	70,299,595	190,308,568	162,362,412	155,688,040	161,977,028

(a) Quantity not available. (b) Includes chilled beef. (c) Includes hare skins. (d) Includes edible and inedible tallow.

NOTE.—Minus sign (−) signifies net imports.

The values of the net exports for the same five years are furnished in the next table. For the four years ended 1949–50 they amounted to £959,999,865, or an average of £239,999,966 per annum, of which wool represented 85.0 per cent. Meat, skins and tallow comprise the remaining principal pastoral products exported. Net exports in 1938–39 were valued at £56,290,910 of which wool represented 74.56 per cent.

VALUE OF NET EXPORTS OF PASTORAL PRODUCTS : AUSTRALIA.

(£.)

Product.	1938–39.	1946–47.	1947–48.	1948–49.	1949–50.
Animals (living)—					
Cattle ..	989	− 27,970	44,207	− 27,845	− 48,675
Horses ..	− 14	−153,076	− 66,763	−219,246	−179,304
Sheep ..	43,443	99,874	127,806	195,742	235,152
Bones ..	10,909	25,560	42,731	58,260	33,004
Glue-pieces and Sinews ..	− 7,087	− 2,971	− 11,748	− 10,820	− 40,161
Glycerine ..	− 1,307	223,162	− 839	− 14,733	17,059
Hair ..	− 7,280	−431,424	−420,741	−480,928	−511,089
Hoofs ..	8,027	12,044	18,700	22,892	10,589
Horns ..	18,633	14,210	19,867	19,774	20,999
Meats—					
Frozen Beef (*a*) ..	4,323,275	4,581,873	6,192,615	5,815,421	6,704,651
,, Mutton and Lamb ..	4,807,423	4,543,474	4,248,560	4,222,173	7,452,668
,, Rabbits and Hares ..	232,034	660,500	1,865,473	4,152,258	3,986,639
,, Other ..	419,269	591,494	935,421	1,055,289	1,308,003
Potted and Concentrated ..	− 28,025	313,499	347,102	545,467	369,168
Preserved in Tins, etc. ..	493,489	6,826,234	5,567,429	8,110,397	7,542,565
Other (excluding Bacon and Ham) ..	6,355	87,420	100,845	342,943	336,021
Sausage Casings ..	209,280	109,457	137,085	213,396	970,689
Skins—					
Cattle ..	662,203	−168,110	163,796	1,104,468	1,282,936
Calf ..	131,227	−229,022	− 55,970	48	17,353
Horse ..	7,202	75,681	70,013	123,280	135,281
Sheep and Lamb ..	2,339,703	7,391,639	7,423,025	7,401,022	11,685.123
Rabbit ..	(*b*) 396,830	6,066.800	3,954,654	(*b*) 2,992,027	(*b*) 1,628,203
Other (including Undressed Furs) ..	−226,376	592,344	−582,045	− 49,203	− 18,314
Tallow ..	480,744	(*c*) 355,328	(*c*) 572,818	(*c*) 1,141,738	(*c*) 1,868,237
Wool—					
Greasy ..	36,688,235	96,464,590	117,880,963	194,747,606	264,245,994
Scoured, Tops, etc. ..	5,281,729	29,223,353	29,970,640	35,825,848	47,868,193
Total Values ..	56,290,910	157,245,963	178,545,644	267,287,274	356,920,984

(*a*) Includes chilled beef. (*b*) Includes hare skins. (*c*) Includes edible and inedible tallow.

NOTE.—The minus sign (−) signifies net imports.

6. **Value of Pastoral Production.**—(i) *Gross, Local and Net Values*, 1948–49 *and* 1949–50. Values of pastoral production for each State are shown for 1948–49 and 1949–50 in the following table. Fuller details of the source of the information and an explanation of the terms used in this compilation will be found in Chapter XXIX.—Miscellaneous. Maintenance costs have not been computed in all States and depreciation has not been deducted ; consequently the net values are inflated to the extent of these costs.

GROSS, LOCAL AND NET VALUES OF PASTORAL PRODUCTION, 1948–49 AND 1949–50.

(£'000.)

State.	Gross Production valued at Principal Markets.	Marketing Costs.	Gross Production valued at Farm.	Farm Costs.		Net Value of Production. (a)
				Seed used, and Fodder for Farm Stock.	Value of other materials used in process of Production.	
			1948–49.			
New South Wales ..	107,706	6,171	101,535	1,273	(b) 516	99,746
Victoria ..	58,522	4,462	54,060	604	1,532	51,924
Queensland ..	49,308	4,600	44,708	1,800	720	42,188
South Australia	22,819	1,344	21,475	435	472	20,568
Western Aust.	23,127	1,229	21,898	226	870	20,802
Tasmania ..	6,130	360	5,770	143	(b) 109	5,518
Total ..	267,612	18,166	249,446	4,481	4,219	240,746
			1949–50.			
New South Wales ..	155,745	7,668	148,077	1,571	(b) 587	145,919
Victoria ..	83,453	5,388	78,065	771	2,047	75,247
Queensland ..	65,408	6,530	58,878	2,560	1,020	55,298
South Australia	29,530	1,643	27,887	544	579	26,764
Western Aust.	29,344	1,497	(c) 27,847	309	1,095	26,443
Tasmania ..	8,145	457	7,688	216	(b) 119	7,353
Total ..	371,625	23,183	348,442	5,971	5,447	337,024

(a) No deduction has been made for depreciation and maintenance. (b) No allowances made for costs of power, power kerosene, petrol and other oils. (c) Excludes £23,552,000 comprising an interim distribution of profits under the Wool Disposal Plan.

(ii) *Net Values*, 1934–35 *to* 1949–50. The net value of pastoral production by States and the net value per head of population for the years 1945–46 to 1949–50 compared with the average for the years 1934–35 to 1938–39 are shown below.

NET VALUE OF PASTORAL PRODUCTION.

Year.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Total.
			NET VALUE.(a) (£'000.)				
Average, 1934–35 to 1938–39 ..	30,592	16,784	13,384	4,583	4,307	1,429	71,079
1945–46	34,043	18,098	18,944	6,198	6,804	2,226	86,313
1946–47	52,666	28,639	26,089	9,585	9,648	3,580	130,207
1947–48	76,622	41,314	37,614	16,335	16,815	4,348	193,048
1948–49	99,746	51,924	42,188	20,568	20,802	5,518	240,746
1949–50	145,919	75,247	55,298	26,764	26,443	7,353	337,024

(a) No deduction has been made for depreciation and maintenance.

NET VALUE OF PASTORAL PRODUCTION—*continued.*

Year.	N.S.W.	Vic.	Qld.	S.A.	W.A.	Tas.	Total.
NET VALUE PER HEAD OF POPULATION.(*a*) (£ *s. d.*)							
Average, 1934–35 to 1938–39 ..	11 8 0	9 1 3	13 11 10	7 15 6	9 9 2	6 2 7	10 8 8
1945–46	11 12 2	8 19 7	17 9 6	9 16 5	13 17 7	8 17 10	11 12 4
1946–47	17 15 5	14 0 10	23 15 7	14 19 4	19 8 1	14 1 3	17 6 3
1947–48	25 9 9	19 19 4	33 16 1	25 0 10	33 0 11	16 12 2	25 5 4
1948–49	32 11 1	24 11 5	37 3 5	30 18 6	39 16 8	20 11 5	30 17 5
1949–50	46 0 1	34 13 5	47 10 11	38 19 4	48 8 11	26 10 2	41 17 4

(*a*) No deduction has been made for depreciation and maintenance.

7. **Consumption of Meats.**—Particulars of the quantity of meat per head per annum available for civilian consumption in Australia, Canada, the United Kingdom and the United States are given in the following table. Canned and cured meat has been included at its carcass weight equivalent.

The sources of the figures for Canada, the United Kingdom, and the United States of America are Food Balance Sheets published by the Food and Agricultural Organization of the United Nations (April, 1949) for the years 1947–48 to 1949–50 and Food Consumption Levels in the United States of America, Canada and the United Kingdom—Third Report (1946) of a Special Joint Committee set up by the Combined Food Board for the pre-war periods.

The demand for meat during the war years was such as to necessitate the introduction of rationing in order to divert supplies from civilian consumption to the armed services. The rationing of meat (other than bacon and ham, canned meat, sausages and offal) was in operation in Australia from 17th January, 1944 to 21st June, 1948. Details of the ration rates in force over this period are shown in Official Year Book No. 37, p. 858.

QUANTITY OF MEAT (INCLUDING CURED AND CANNED) AND EDIBLE OFFAL AVAILABLE FOR CIVILIAN CONSUMPTION PER HEAD PER ANNUM.

(lb.—in terms of Carcass Weight.)

Country.	Average, Pre-war.	1947–48.	1948–49.	1949–50.
Australia..	(*a*) 253.0	216.8	228.1	233.0
Canada	(*b*) 118.4	142.9	134.3	134.5
United Kingdom	(*c*) 131.7	102.5	86.4	(*d*)
United States of America	(*b*) 134.1	160.1	154.3	(*d*)

(*a*) Average for years 1936–37 to 1938–39. (*b*) Average for years 1935 to 1939. (*c*) Average for years 1934 to 1938. (*d*) Not yet available.

8. **Marketing of Meat.**—(i) *General.* The Meat Export Control Act 1935–1946 was introduced following a decision of a conference of Commonwealth and State Ministers with members of the Commonwealth Meat Advisory Committee, held in October, 1935, to set up a Meat Board with defined statutory powers. The Australian Meat Board, which was appointed under the Act in January, 1936, consisted of eighteen members, representative of producers, processors, exporters and the Commonwealth Government. Provision was made for the appointment from within the Board of an Executive Committee and a Beef Committee. The Act provided for the control of the export of meat by licence. The Board was empowered to regulate shipments of meat and to arrange contracts in respect of freights and insurances; to promote oversea sales by advertising and to foster research into meat problems; and to supervise the issue of export licences. The Board also has power to appoint a London representative.

During the 1939–45 War the control of meat exports was under National Security Regulations which ceased to operate with the expiry of the National Security Act on 31st December, 1946. Control then reverted to the Board, which was reconstituted in August, 1946 by legislation amending the Meat Export Control Act. Membership of the reconstituted Board is on an industry basis in lieu of a State basis and the number of members has been reduced from eighteen to twelve. The powers and functions of the Board were *inter alia* extended to enable it to purchase and sell any meat, meat products or edible offal on behalf of the Commonwealth Government and subject to any direction of the Minister for Commerce and Agriculture.

The Meat Export Charges Act 1935–1946 provides for the imposition of a levy on all meats exported from Australia, the funds from which are used for the purpose of defraying expenses and charges incurred by the Australian Meat Board in the course of its business. The customary provision is made for exemption from the levy when recommended by the Board.

(ii) *War-time Marketing.* Details of arrangements for the marketing of meat during the 1939–45 War are given on page 1107 of Official Year Book No. 36.

(iii) *United Kingdom Long-term Purchase Agreements.* (*a*) *Up to 30th June,* 1952. Details of the long-term meat contracts with the United Kingdom Government from the outbreak of the 1939–45 War up to 30th September, 1950, were given on page 903 of Official Year Book No. 38, and page 1107 of Official Year Book No. 36.

Since the termination of the long-term contract on 30th September, 1950, annual arrangements have been entered into for the sale of Australia's exportable surplus of meat to the United Kingdom up to 30th June, 1952.

The following table sets out the prices of representative descriptions of Australian beef and lamb which have been sold to the United Kingdom on a Government-to-Government basis since the beginning of the 1939–45 War.

CONTRACT PRICES : BEEF AND LAMB SOLD TO UNITED KINGDOM.

Beef.			Lamb.		
Contract approved from—	First Quality Ox Sides.		Contract approved from—	First Quality. (37–42 lb.)	
	Per lb. Sterling.	Per lb. Australian.		Per lb. Sterling.	Per lb. Australian.
	d.	*d.*		*d.*	*d.*
October, 1939..	3.406	4.266	October, 1939 ..	5.438	6.811
„ 1941..	3.781	4.736	„ 1941 ..	5.813	7.281
December, 1943..	3.969	4.971	„ 1944 ..	6.250	7.828
January, 1946..	4.344	5.441	„ 1946 ..	7.790	9.757
October, 1946..	4.844	6.067	„ 1948 ..	8.667	10.855
April, 1948..	5.344	6.693	July, 1949 ..	9.688	12.134
October, 1948..	6.063	7.594	„ 1950 ..	10.438	13.074
„ 1949..	7.063	8.846			
„ 1950..	7.906	9.902			

(*b*) *The Fifteen-year Meat Agreement.* Representatives of the United Kingdom and Australian Governments signed a fifteen-year meat agreement in London in October, 1951, which covers the period from 1st July, 1952 to 30th September, 1967.

The classes of meat included in the Agreement are chilled and frozen beef, frozen veal, frozen mutton and lamb, frozen cattle and sheep sundries and edible offals.

The principal objectives of the Agreement are to promote the production of meat in Australia, enabling increased exports to be made to the United Kingdom and providing for a satisfactory market for Australian meat in the United Kingdom for the period of the Agreement.

The first detailed Agreement for beef and veal covers the period of six years ending 30th September, 1958, and for mutton and lamb for three years ending 30th June, 1955. In both cases, 1950–51 prices will be the basic level.

The prices which have been agreed for the meat year 1951–52 represent substantial increases on those previously ruling. From July, 1951, lamb schedule prices have been increased by 17½ per cent., first quality mutton by 15 per cent. and other grades of mutton by 10 per cent. Beef prices have been increased by 3d. sterling per lb. for first quality ox and heifer, 2½d. sterling per lb. for second quality ox and heifer and first and second quality cow, and 1¼d. sterling per lb. for veal and other grades of beef.

Provision has also been made for reservation of quantities of meat for sale to other markets. This will be 3 per cent. of the quantity shipped to the United Kingdom, or such other amount as may be agreed annually between the two Governments.

Pig meats are not included in the Agreement, and negotiations are continuing in respect of this class of meat.

§ 2. Horses.

1. **Suitability of Australia for Horse-breeding.**—From the earliest times the suitability of the climate and pastures of Australia for the production of serviceable breeds of horses has been fully recognized. By the importation of high-class sires, and the careful selection of breeding mares, these natural advantages have been utilized to the fullest extent in breeding all classes of horses. As a consequence of this combination of advantages, the Australian horse, whether of the heavy draught, medium weight or light saddle variety, compares very favourably with the product of other lands.

2. **Distribution throughout Australia.**—The States of New South Wales, Queensland and Victoria together depasture about 80 per cent. of the total number of horses in Australia. In the following table figures are shown for each State and Territory for the years 1947 to 1951 in comparison with the average for the years 1935 to 1939 :—

HORSES : NUMBER.
('000.)

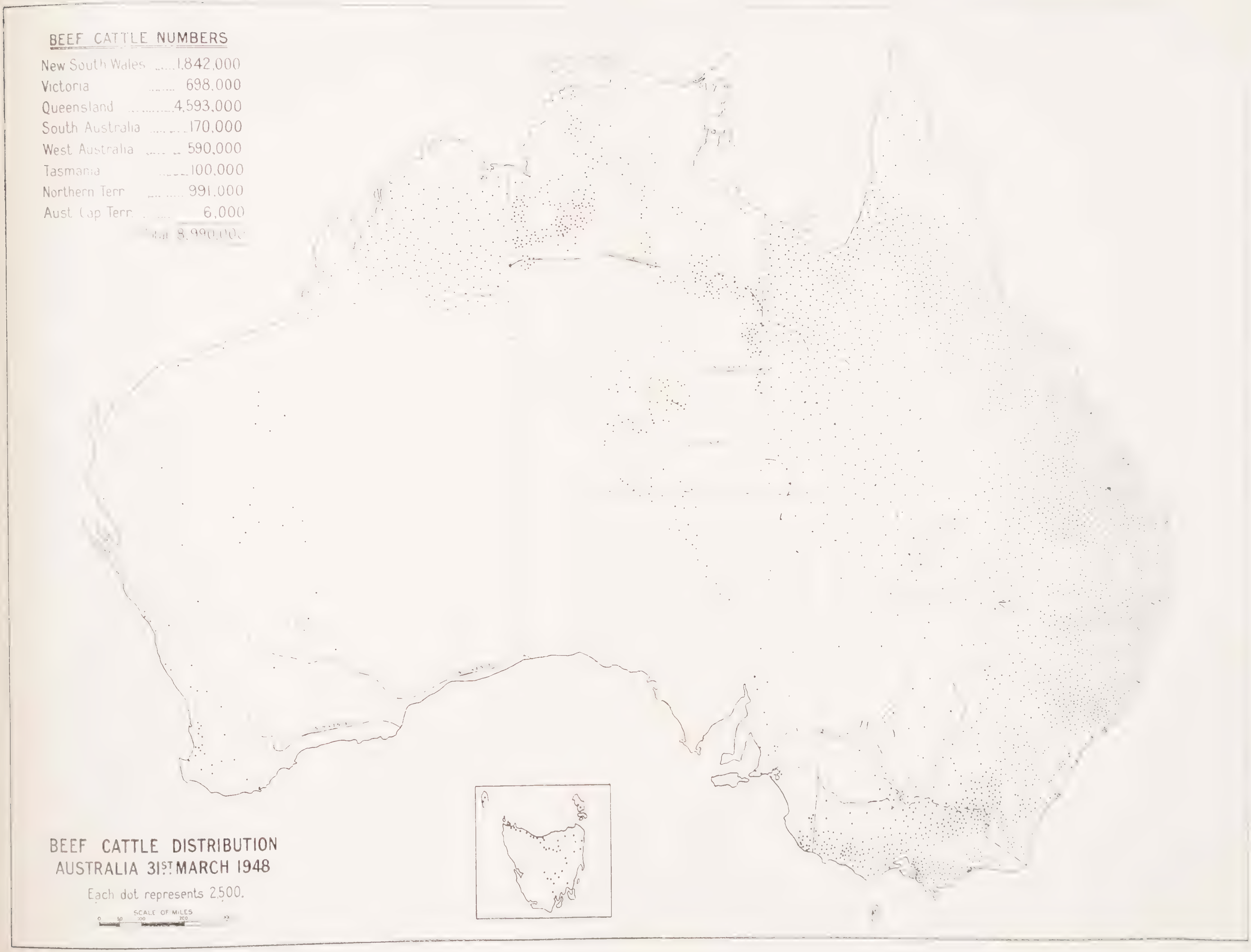
Year.	N.S.W.	Vic.	Q'land.	S. Aust.	W.Aust.	Tas.	N.T.	A.C.T.	Total.
Average, 1935 to 1939 ..	537	355	444	198	154	31	33	1	1,753
1947 ..	380	227	343	109	81	24	30	1	1,195
1948 ..	376	221	336	101	75	23	32	1	1,165
1949 ..	358	213	325	94	69	22	33	1	1,115
1950 ..	343	200	317	83	59	21	33	1	1,057
1951 ..	329	187	307	71	55	20	29	1	999

The number of horses attained its maximum in Australia during 1918, when a total of 2,527,149 was recorded. The United States of America made its highest recording in the same year and Canada in 1921. The number in Australia has declined considerably since 1918 owing to the mechanization of transport and farming. During the period 1918 to 1949 the decrease in numbers averaged 45,500 per annum, the rate of decline being 40,000 per annum during the five years ended 1951.

The number of horses in Australia from 1860 onwards may be obtained from the graph on page 872.

The percentages of the number of horses in the several States and Territories of the total for Australia for 1951 were :—New South Wales, 32.88 ; Victoria, 18.66 ; Queensland, 30.75 ; South Australia, 7.13 ; Western Australia, 5.54 ; Tasmania, 2.01 ; Northern Territory, 2.94 ; and Australian Capital Territory, 0.09 per cent.

3. **Oversea Trade in Horses.**—(i) *Exports.* The export of horses from Australia during the early years of this century was fairly considerable, averaging about 15,000 head per annum between 1901 and 1920, exclusive of those used for war purposes during the 1914–18 War. Since then, exports have gradually declined and averaged only about 4,000 for the five years ended 1938–39 and 845 for the five years ended 1949–50.

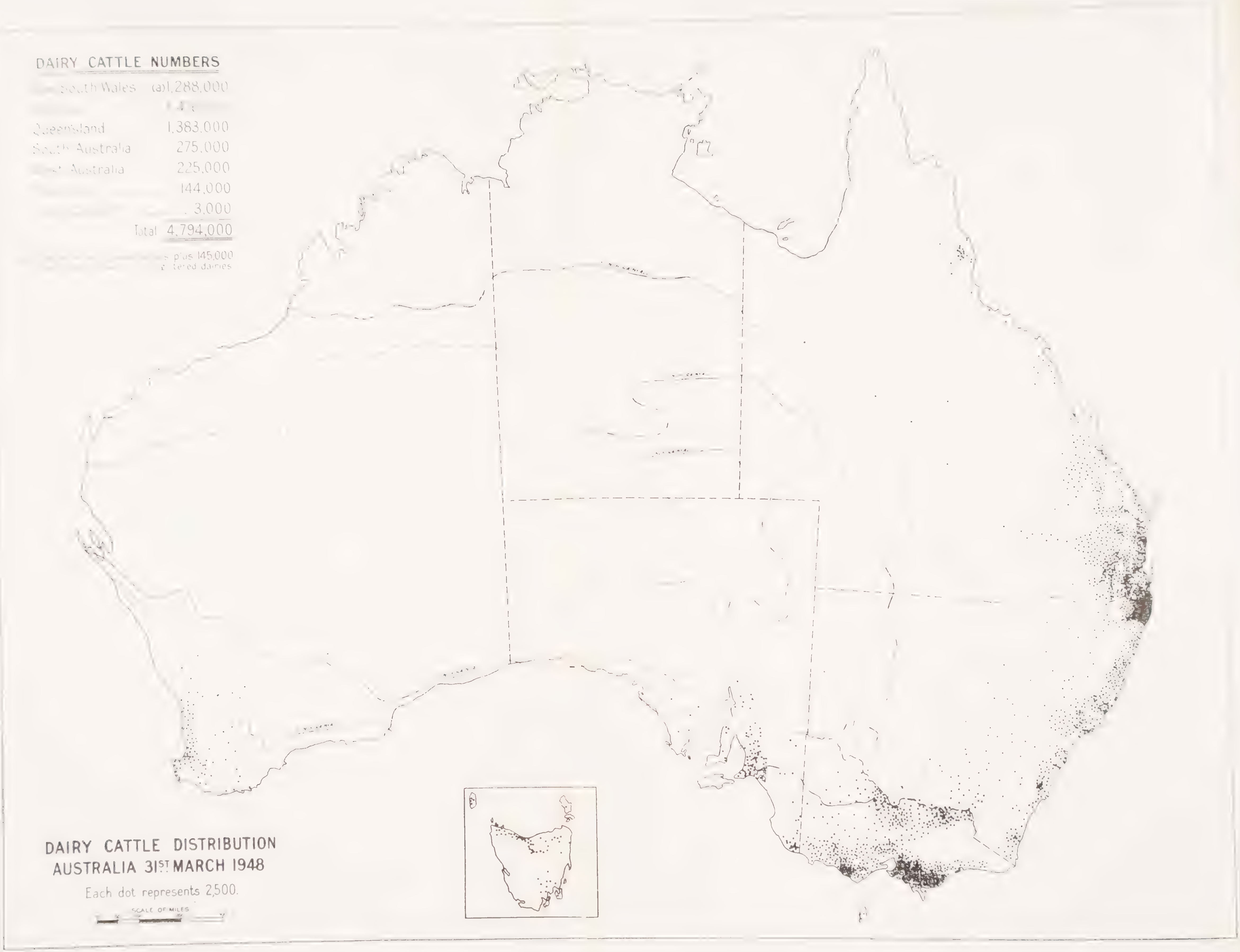


BEEF CATTLE NUMBERS

New South Wales	1,842,000
Victoria	698,000
Queensland	4,593,000
South Australia	170,000
West Australia	590,000
Tasmania	100,000
Northern Terr	991,000
Aust Cap Terr	6,000
Total	8,990,000

BEEF CATTLE DISTRIBUTION
AUSTRALIA 31ST MARCH 1948

Each dot represents 2,500.



DAIRY CATTLE DISTRIBUTION
AUSTRALIA 31ST MARCH 1948

Each dot represents 2,500.

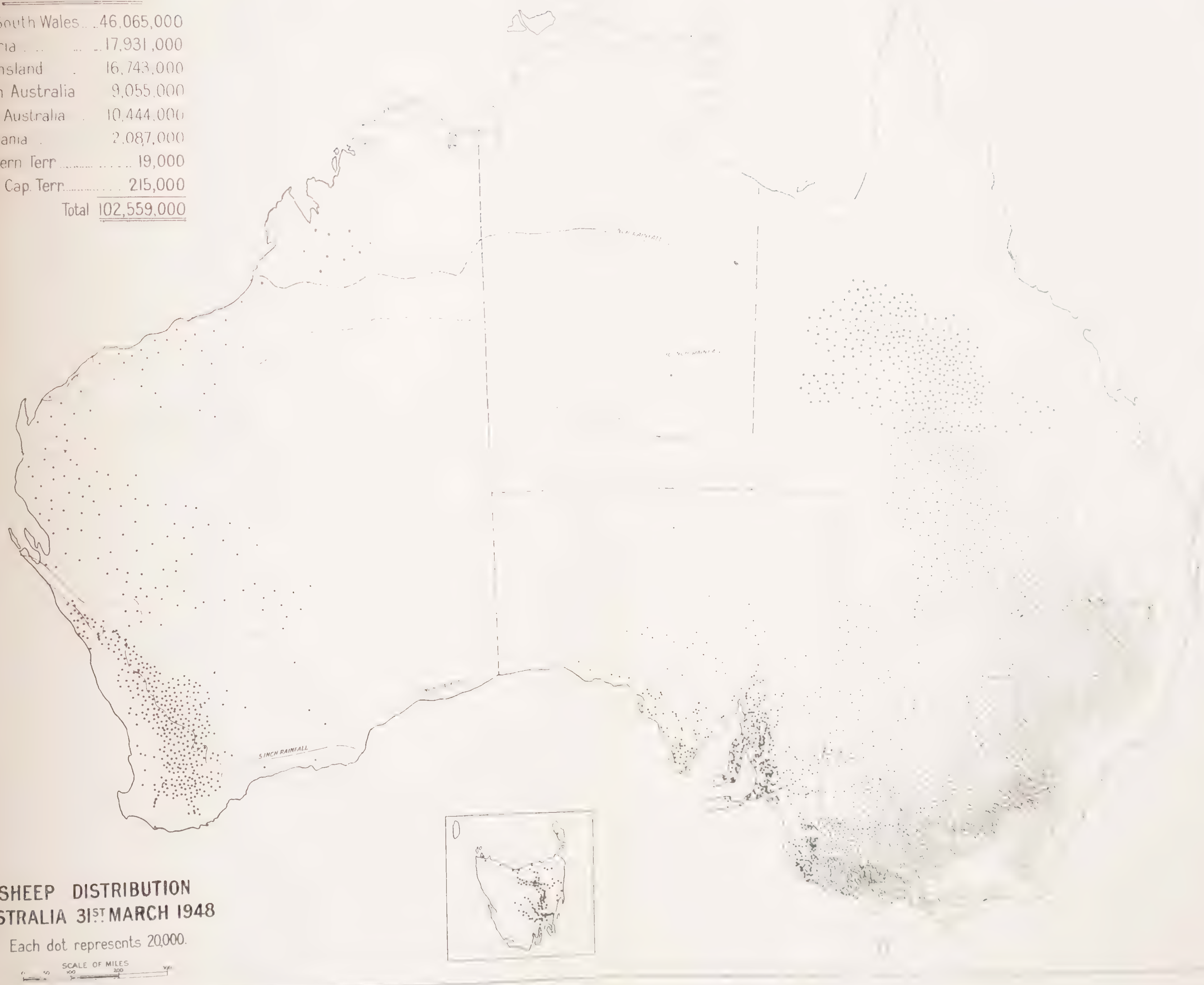
DAIRY CATTLE NUMBERS

New South Wales	(a)1,288,000
[illegible]	[illegible]
Queensland	1,383,000
South Australia	275,000
West Australia	225,000
[illegible]	144,000
[illegible]	3,000
Total	4,794,000

[illegible] plus 145,000 [illegible]tered dairies

SHEEP NUMBERS

New South Wales	46,065,000
Victoria	17,931,000
Queensland	16,743,000
South Australia	9,055,000
West Australia	10,444,000
Tasmania	2,087,000
Northern Terr	19,000
Aust. Cap. Terr	215,000
Total	102,559,000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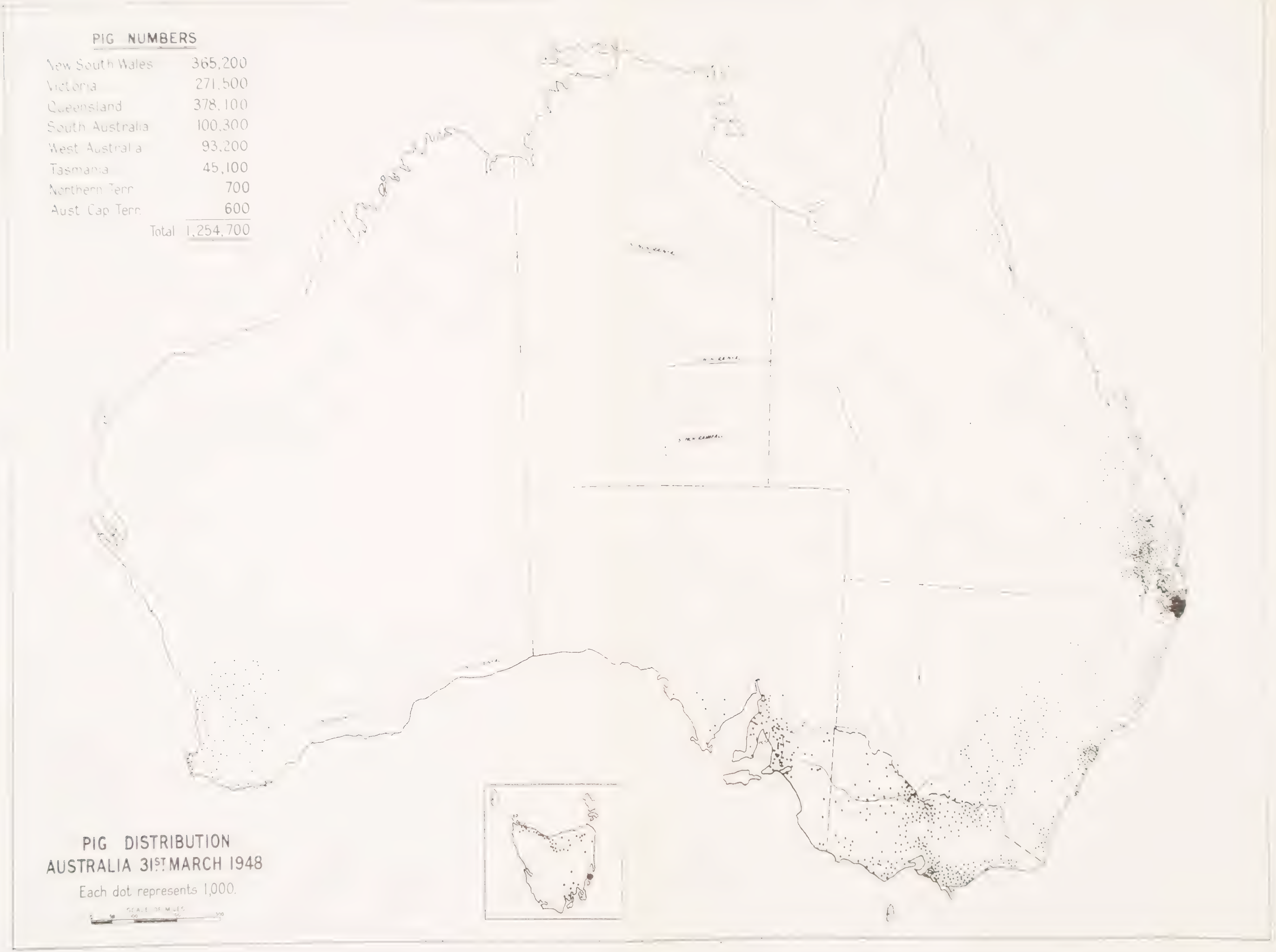
SHEEP DISTRIBUTION
AUSTRALIA 31ST MARCH 1948

Each dot represents 20,000.



PIG NUMBERS

New South Wales	365,200
Victoria	271,500
Queensland	378,100
South Australia	100,300
West Australia	93,200
Tasmania	45,100
Northern Terr	700
Aust Cap Terr	600
Total	1,254,700

PIG DISTRIBUTION
AUSTRALIA 31ST MARCH 1948

Each dot represents 1,000.

(ii) *Imports.* The few horses imported into Australia consist mainly of valuable stud animals from the United Kingdom and racehorses from New Zealand. The average value per head of the horses imported during the five years 1945–46 to 1949–50 was £898. The average number imported per annum was 343 and the average annual value, £308,004.

Details of the quantity and value of imports, exports and net exports of horses are shown in the following table for the years 1945–46 to 1949–50 compared with the average for the five years ended 1938–39.

HORSES: IMPORTS AND EXPORTS, AUSTRALIA.

Year.	Imports.		Exports.		Net Exports.	
	No.	Value.	No.	Value.	No.	Value.
		£		£		£
Average, 1934–35 to 1938–39	321	135,459	4,005	139,012	3,684	3,553
1945–46 ..	165	184,880	133	63,931	−32	−120,949
1946–47 ..	317	338,241	934	185,165	617	−153,076
1947–48 ..	341	303,240	920	236,477	579	− 66,763
1948–49 ..	424	361,061	1,018	141,815	594	−219,246
1949–50 ..	469	352,600	1,219	173,296	750	−179,304

NOTE.—The minus sign (−) signifies net imports.

§ 3. Cattle.

1. **Purposes for which Raised.**—Cattle-raising is carried out in all the States, the main object in certain districts being the production of stock suitable for slaughtering purposes, and in others the raising of profitable dairy herds. The great impetus which the development of the export trade in Australian butter gave to the dairying industry led to a considerable increase in numbers and an improvement in quality of the dairy herds in Victoria, New South Wales, and southern Queensland in particular, the portion of Australia in the temperate zone being the best adapted to this industry. On the other hand, beef-producing cattle are mainly raised in the tropical districts, i.e., in the northern parts of Queensland, in the Northern Territory, and in the Kimberley district in the north of Western Australia.

2. **Distribution throughout Australia.**—Until 1880, New South Wales was the principal cattle-raising State, but in that year Queensland occupied the leading position, which it has since maintained. There was a very rapid increase in the number of cattle in Australia up to the year 1894, when 12,311,617 head were depastured. From 1895 onwards, however, the effects of droughts and the ravages of tick fever reduced the number to 7,062,742 in 1902. Following the disastrous drought which terminated in the latter year the herds were gradually built up, and, despite recurring droughts, they continued to increase until the maximum number of 14,441,309 cattle was attained in 1921. After that year the number dropped continuously till 1929, largely owing to the decline in the oversea demand for frozen beef. With the expansion of dairying it recovered to 14,048,671 in 1934, but from that year declined continuously to 1939 when it stood at 12,861,781. The upward movement which commenced in 1940 was continued until 1944, the total number of cattle (14,183,679) in the latter year being at its highest level since 1923. Drought conditions and other factors during 1944–45 and 1945–46 caused a decline in numbers to 14,133,167 in 1945, to 13,878,006 in 1946 and to 13,426,646 in 1947. There has since, however, been a continuous upward movement in numbers to 15,229,000 in 1951, which is the highest number yet recorded. A graph showing the number of cattle in Australia from 1860 appears on page 872.

The numbers of cattle (beef and dairy) in the several States and Territories in each year 1947 to 1951 compared with the average for the years 1935 to 1939 are shown below.

CATTLE : NUMBER.
('000.)

Year.	N.S.W.	Vic.	Q'land.	S. Aust.	W.Aust.	Tas.	Nor. Terr.	Aust. Cap. Terr.	Total.
Average, 1935 to 1939 ..	3,198	1,952	6,018	331	819	262	889	9	13,478
1947	2,983	2,060	5,946	424	812	220	973	9	13,427
1948	3,130	2,174	5,976	445	816	244	991	9	13,785
1949	3,253	2,225	5,992	461	864	266	1,053	10	14,124
1950	3,440	2,231	6,305	464	865	275	1,049	11	14,640
1951	3,703	2,216	6,734	433	841	272	1,019	11	15,229

Although the proportion is not as high as it has been in the past, Queensland was carrying 44.21 per cent. of the cattle in Australia in 1951. The percentage in each State and Territory during that year was :—New South Wales, 24.31 ; Victoria, 14.55 ; Queensland, 44.21 ; South Australia, 2.84 ; Western Australia, 5.53 ; Tasmania, 1.79 ; Northern Territory, 6.69 ; Australian Capital Territory, 0.08.

Graphs indicating the distribution of beef and dairy cattle separately in Australia during 1947–48 are shown on pages 905–6 of this Year Book. A graph showing the distribution in 1924–25 of the total cattle in Australia appeared on page 660 of Official Year Book No. 22, while in Official Year Book No. 34 similar graphs respecting the distribution of total cattle and of dairy cows may be found on pp. 453–4.

3. **Classification of Cattle According to Purpose.**—Of the total number of cattle in Australia in 1951, 10,426,000 or 68.46 per cent. were classified as beef cattle. The numbers classified as beef cattle in the several States and Territories during the years 1943 and 1947 to 1951 were as follows :—

BEEF CATTLE : NUMBER.
('000.)

Year.	N.S.W.	Vic.	Q'land.	S. Aust.	W.Aust.	Tas.	Nor. Terr.	Aust. Cap. Terr.	Total.
1943	1,676	577	4,893	171	605	102	978	5	9,007
1947	1,756	648	4,613	162	588	88	973	6	8,834
1948	1,890	698	4,593	170	590	100	991	6	9,038
1949	1,994	711	4,569	182	634	111	1,053	7	9,261
1950	2,167	706	4,872	193	638	117	1,049	8	9,750
1951	2,457	727	5,293	189	618	115	1,019	8	10,426

A classification of numbers on this basis is not available prior to 1943.

Particulars relating to dairy cattle numbers will be found in Chapter XXI.—**Farmyard, Dairy and Bee Products.**

4. **Size Classifications of Cattle Herds.**—A special series of tabulations relating to rural holdings in Australia was compiled for 1949–50 and published in *Primary Industries Bulletin* No. 44. The tables relating to beef and dairy cattle show classifications according to size of herd and area of the holdings.

5. **Comparison with other Countries.**—The following table shows the number of cattle in Australia and in some of the principal cattle-raising countries of the world for the years 1936–40 and at the latest available date. The figures, which have been compiled by the Food and Agriculture Organization of the United Nations, relate generally to areas embraced by post-war boundaries, but do not cover identical areas for the two periods in all cases.

CATTLE : NUMBER IN VARIOUS COUNTRIES.

('000.)

Country.	Average, 1936–40.(*a*)	Year and Month.	Number.
India	(*b*) 137,974	1945	136,789
United States of America	66,684	1949 (January) ..	78,298
Brazil	40,807	1949 (January) ..	50,178
U.S.S.R. (Russia)	48,500	1946	(*c*) 41,500
Argentina	33,762	1947 (June) ..	41,268
Pakistan	(*b*) 24,444	1947–48 ..	24,296
China, Proper	(*d*) 23,081	1948 (April) ..	18,200
France	15,504	1948 (October) ..	15,434
Australia	**13,285**	**1950 (March)** ..	**14,640**
Colombia	8,010	1947 (December)	13,902
Germany	19,881	1948 (December)	13,522
Mexico	11,722	1948 (December)	13,217
Union of South Africa	11,636	1947 (August) ..	12,470
Turkey	7,177	1948 (December)	10,279
United Kingdom	8,798	1948 (December)	9,529
Canada	8,246	1948 (December)	8,251
Italy	7,571	1948 (January) ..	7,923
Uruguay	8,297	1946 (May) ..	6,821
Tanganyika	(*b*) 5,209	1947	6,420
Madagascar	(*b*) 5,266	1947 (December)	5,307

(*a*) Average for two to four years in some cases. (*b*) 1939. (*c*) Unofficial estimate. (*d*) 1937.

6. **Imports and Exports of Cattle.**—The products of the cattle-raising industry figure largely in the export trade of Australia, although the export of live cattle has never been large. The number of cattle imported is also small, consisting, as in the case of horses, mainly of valuable animals for stud purposes. Details for the years 1945–46 to 1949–50 compared with the average for the years 1934–35 to 1938–39 are as follows :—

CATTLE : IMPORTS AND EXPORTS, AUSTRALIA.

Year.	Imports.		Exports.		Net Exports.	
	No.	Value.	No.	Value.	No.	Value.
		£		£		£
Average, 1934–35 to 1938–39	295	22,304	308	5,977	13	−16,327
1945–46 ..	56	32,919	340	10,110	284	−22,809
1946–47 ..	111	56,585	781	28,615	670	−27,970
1947–48 ..	103	29,934	4,359	74,141	4,256	44,207
1948–49 ..	147	75,553	1,087	47,708	940	−27,845
1949–50 ..	160	88,831	485	40,156	325	−48,675

NOTE.—The minus sign (−) signifies net imports.

The average value per head of the cattle imported during the last five years was £491 17s. 10d. while the average value per head of the cattle exported during the same period was £28 9s. 3d.

7. **Cattle Slaughtered.**—The numbers of cattle slaughtered during each of the years ended June, 1946 to 1950 compared with the average for the years 1934–35 to 1938–39 are shown in the following table :—

CATTLE (INCLUDING CALVES) SLAUGHTERED.

('000.)

Year ended June—	Slaughterings passed for Human Consumption.									Total Slaughterings including Boiled Down.
	N.S.W.	Vic.	Qld.	S.A.	W.A.	Tas.	N. T.	A.C.T.	Total.	
Average, 1935 to 1939.. ..	(a) 1,112	812	1,046	(b) 156	(b) 124	45	(b) 4	2	3,301	3,331
1946	1,002	574	798	137	119	43	25	2	2,700	2,741
1947	1,070	678	1,081	145	133	42	12	3	3,164	3,199
1948	1,076	748	1,188	165	145	38	15	3	3,378	3,411
1949	1,136	850	1,089	195	159	45	15	5	3,494	3,523
1950	1,156	893	1,102	213	166	58	14	6	3,608	3,648

(a) Year ended March. (b) Year ended previous December.

8. **Production of Beef and Veal.**—Details of the production of beef and veal in each State and Territory are shown in the following table for the years indicated :—

PRODUCTION OF BEEF AND VEAL (BONE-IN WEIGHT) : AUSTRALIA.

('000 tons.)

Year ended June—	N.S.W.	Victoria.	Q'land.	S. Aust.	W.Aust.	Tas.	N. Terr.	A.C.T.	Total.
Average, 1935 to 1939	(a) 173	115	181	(b) 25	(b) 27	9	(b) 1	..	531
1946	134	76	137	21	24	8	6	1	407
1947	140	96	190	24	26	8	3	1	488
1948	162	105	226	27	30	8	3	1	562
1949	180	118	202	30	33	10	3	1	577
1950	186	125	212	33	35	12	3	1	607

(a) Year ended March. (b) Year ended previous December.

9. **Consumption of Beef and Veal.**—For the three pre-war years 1936–37 to 1938–39 the average annual production of beef and veal in Australia was 569,000 tons of which 127,000 tons were exported, leaving a balance of 442,000 tons (or the carcass equivalent of 144 lb. per head per annum) available for consumption as fresh and canned meat.

In order to cope with the increasing demands by Australian and Allied Services based upon Australia and to supply as much beef as possible to meet the import requirements of the United Kingdom, it was necessary to introduce from January, 1944 a system of rationing limiting civilian consumption which has always been very high. As a result, the quantity of beef and veal entering civilian consumption per head decreased from the pre-war average of 144 lb. to 124 lb. in 1943, 92 lb. in 1944 and 87 lb. in 1945. Consumption subsequently increased to 93 lb. per head in 1946, 97 lb. in 1946–47 and 109 lb. in 1947–48. Following the termination of meat rationing from 21st June, 1948, the upward movement in beef and veal consumption has been more pronounced and reached 132.5 lb. per head in 1950–51. Increases in consumption in recent years have been associated with declining consumption of mutton and lamb.

In the following table details of the production and disposal of beef and veal are shown for the periods stated.

PRODUCTION AND DISPOSAL OF BEEF AND VEAL (BONE-IN WEIGHT): AUSTRALIA.

('000 tons.)

Year.	Changes in Stock.	Production.	Exports.	For Canning.	Consumption in Australia as Human Food.	
					Total.	Per Head per Annum.
						lb.
Average, 1936–37 to 1938–39 ..	..	569	127	(a)	442	144.1
1948–49	— 4	577	98	60	423	121.3
1949–50	— 9	607	94	75	447	124.3
1950–51(b)	+ 10	652	81	69	492	132.5

(a) Included with exports. (b) Subject to revision.

10. **Exports of Frozen Beef and Veal.**—The export of frozen meat from Australia dates from about 1881, and since that year the trade has grown considerably. The quantity of frozen beef and veal exported in 1938–39 amounted to 271,963,829 lb., valued at £4,323,680, but there was a decline during the war years owing to reduced production and the diversion of supplies to meet the requirements of the Australian and Allied Services based on Australia. The quantity exported in 1949–50, although considerably above the war-time levels, was approximately 32.95 per cent. less than in 1938–39. In 1950–51 it was 158,309,727 lb. or 41.79 per cent. less than in 1938–39. The quantities and values of frozen beef and veal exported during the five pre-war years ended 1938–39 and in each year 1945–46 to 1950–51 are shown in the following table :—

EXPORTS OF FROZEN BEEF AND VEAL: AUSTRALIA.

Year.	Exports of Frozen and Chilled Beef.		Exports of Frozen Veal.	
	Quantity.	Value.	Quantity.	Value.
	'000 lb.	£	'000 lb.	£
Average, 1934–35 to 1938–39	231,355	3,188,491	10,353	165,205
1945–46	106,060	2,711,077	4,732	122,906
1946–47	178,298	4,521,746	2,040	60,127
1947–48	234,593	6,110,568	2,557	82,047
1948–49	189,007	5,715,934	2,646	99,532
1949–50	178,128	6,522,476	4,233	182,175
1950–51	154,832	6,440,395	3,478	207,459

Prior to the war the largest purchaser of Australian beef and veal was the United Kingdom, which during 1938–39 took £3,901,691, or about 90.2 per cent., of the total shipments. Other countries importing Australian beef were, in order of importance, Egypt, Malaya (British), Malta, Philippine Islands and Hong Kong; these countries, together with the United Kingdom, accounted for 98.0 per cent. of the total value of exports. However, at the request of the United Kingdom Government there was a considerable diversion from that country to nearer British possessions during the war years. In 1950–51 shipments to the United Kingdom were valued at £4,310,178 or 64.8 per cent. of the total value of beef and veal exports, while exports to other British countries amounted to £1,783,915, equivalent to 26.8 per cent. of the total.

In view of the preference overseas for chilled beef, the Australian beef industry was at a serious disadvantage until investigations proved that beef could be successfully transported from Australia to United Kingdom in a chilled condition. Trial shipments of 254,000 lb. in 1932–33 and 1,515,000 lb. in 1933–34 were made, and the exports in subsequent years increased as follows :—1934–35, 21,570,928 lb., £322,239; 1936–37, 41,869,695 lb., £608,175; and 1938–39, 58,963,009 lb., £988,148. However, the advent of war seriously affected the export trade in chilled beef, which decreased from 12,786,859 lb. in 1939–40 to nil or negligible amounts in subsequent years.

§ 4. Sheep.

1. **Initiation of the Pastoral Industry.**—Fortunately for Australia, the suitability of its climate and general conditions for the production of a high class of wool were, at an early date in the history of its settlement, surmised and tested by Captain Macarthur, one of the pioneer sheep-breeders of New South Wales. To the energy of this enterprising pastoralist is due in large measure the rapid and extremely satisfactory development of Australia as a producer of fine wool, and while it would appear that the introduction of the merino sheep into Australia was not due to Macarthur, a great deal of the credit for having successfully established the pastoral industry in Australia must certainly be his.

2. **Movement in Sheep Numbers in Australia.**—Fluctuations in the number of sheep recorded for each year in Australia from 1860 onwards may be seen from the graph on page 872. Up to 1945 there were five marked periods of decline, but the losses were made up rapidly. In each of the years 1925 to 1945 the sheep flocks exceeded 100 million, reaching 125,189,129 in 1942, the greatest number recorded in Australia. At no previous period have such large numbers been depastured continuously, and the development has taken place despite an increase in the annual slaughter for the meat trade over this period, from about 10 million to 25 million.

However, a sharp decline to 105 million occurred in 1945, followed by a further reduction to 96.4 million in 1946 and to 95.7 million in 1947. This represented a loss from all causes other than slaughtering of about 37 million sheep (30 per cent.) since 1944 and was largely attributable to the severe drought conditions experienced during 1944, 1945 and 1946. The passing of the drought and consequent re-stocking resulted in a rise in sheep numbers to 108.7 million in 1949, 112.9 million in 1950 and 115.6 million in 1951.

The following table shows the approximate movement in sheep numbers in Australia in each season 1938–39 to 1950–51 :—

SHEEP AND LAMBS : ANALYSIS OF MOVEMENT IN NUMBERS, AUSTRALIA.
('000.)

Season.	Lambs marked.	Excess of Exports	Sheep and Lambs Slaughtered.	Estimated number of deaths from disease, drought, etc. (a)	Number at 31st March.	Annual Net Increase (+) or Decrease (−)
1938–39 ..	25,469	67	18,900	8,817	(b) 111,058	− 2,315
1939–40 ..	33,300	72	19,006	5,975	(b) 119,305	+ 8,247
1940–41 ..	32,238	86	21,822	6,941	(b) 122,694	+ 3,389
1941–42 ..	32,246	65	22,258	7,428	(b) 125,189	+ 2,495
1942–43 ..	32,268	5	25,573	7,264	124,615	− 574
1943–44 ..	33,366	7	26,585	8,215	123,174	− 1,441
1944–45 ..	25,635	3	25,632	17,803	105,371	− 17,803
1945–46 ..	20,683	22	17,682	11,954	96,396	− 8,975
1946–47 ..	25,186	80	18,362	7,417	95,723	− 673
1947–48 ..	30,149	79	17,059	6,175	102,559	+ 6,836
1948–49 ..	30,642	84	17,477	6,905	108,735	+ 6,176
1949–50 ..	30,382	96	20,929	5,201	112,891	+ 4,156
1950–51 ..	29,816	84	16,223	10,804	115,596	+ 2,705

(a) Balance figure. (b) As at commencement of last year shown.

3. **Distribution throughout Australia.**—With the exception of a short period in the early sixties, when the flocks of Victoria outnumbered those of New South Wales, the latter State has occupied the premier position in sheep-raising, depasturing about one half of the sheep of Australia.

A graph indicating the distribution of sheep in Australia during 1947–48 is shown on page 907 of this Year Book. Similar graphs for the years 1938–39 and 1924–25 were published in Official Year Books No. 34, page 452 and No. 22, page 659, respectively.

The numbers of sheep in the several States and Territories for each year 1947 to 1951 compared with the average for the years 1935 to 1939 are shown in the following table :—

SHEEP : NUMBER.
('000.)

Year.	N.S.W.	Vic.	Q'land.	S. Aust.	W.Aust.	Tas.	Nor. Terr.	Aust. Cap. Terr.	Total.
Average, 1935 to 1939 ..	51,774	17,555	21,061	8,515	9,839	2,312	23	240	111,319
1947	43,105	16,599	16,084	7,959	9,787	1,933	28	228	95,723
1948	46,065	17,931	16,743	9,055	10,444	2,087	19	215	102,559
1949	50,404	19,170	16,499	9,366	10,872	2,160	26	238	108,735
1950	53,298	19,161	17,582	9,477	10,923	2,170	26	254	112,891
1951	54,111	20,012	17,478	10,166	11,362	2,181	29	257	115,596

Except when affected by drought, the relative number of sheep depastured in the different States has remained fairly constant.

The percentage distribution in 1951 was :—New South Wales, 46.81 ; Victoria, 17.31 ; Queensland, 15.12 ; South Australia, 8.79 ; Western Australia, 9.83 ; Tasmania, 1.89 ; Northern Territory, 0.03 ; Australian Capital Territory, 0.22 per cent.

4. **Classification of Sheep According to Age, Sex and Breed.**—In the following table numbers of sheep in Australia are classified according to age and sex at 31st March of the years 1943 and 1948 to 1951. Data in this form are not available prior to 1943.

SHEEP : AGE AND SEX, AUSTRALIA.
('000.)

Description.	31st March—				
	1943.	1948.	1949.	1950.	1951.
Rams, 1 year and over ..	1,651	1,384	1,443	1,497	1,473
Breeding ewes (including ewes intended for mating)	56,674	49,771	50,855	52,122	52,794
Other ewes, 1 year and over	9,636	5,432	6,796	6,982	6,760
Wethers, 1 year and over..	31,986	22,932	26,199	29,251	31,516
Lambs and hoggets, under 1 year	24,667	23,040	23,442	23,039	23,053
Total, Sheep and lambs	124,614	102,559	108,735	112,891	115,596

Particulars relating to the principal breeds of sheep were collected uniformly for all States and the Australian Capital Territory at 31st March, 1950 and are shown in the following table. Later details are not available for all States :—

SHEEP : PRINCIPAL BREEDS, 31st MARCH, 1950.
('000.)

Breed.	N.S.W.	Victoria.	Q'land.	S. Aust.	W.Aust.	Tas.	N.T. (a)	A.C.T.	Australia.
Merino	40,017.8	6,870.4	17,326.5	7,717.9	9,666.6	284.6	25.4	224.9	82,134.1
Other recognized breeds ..	3,376.6	4,451.7	71.4	692.7	496.6	875.9	0.1	12.5	9,977.5
Merino comebacks(b)	3,441.7	2,080.3	54.6	167.4	139.9	326.8	0.1	7.5	6,218.3
Crossbreds(c) ..	6,461.9	5,758.6	129.6	899.0	620.1	683.0	0.2	8.6	14,561.0
Total ..	53,298.0	19,161.0	17,582.1	9,477.0	10,923.2	2,170.3	25.8	253.5	112,890.9

(a) As at 31st December, 1949. Distribution between categories has been estimated. (b) Merino Comeback is the progeny of a crossbred merino ewe and a merino ram, i.e., finer than half-bred. (c) Half-bred and coarser.

5. **Numbers of Sheep on Rural Holdings.**—A special series of tabulations relating to rural holdings in Australia was compiled for 1949–50 and published in *Primary Industries Bulletin* No. 44. The tables relating to sheep farming show classifications according to areas of the holdings on which the sheep were carried.

6. **Comparison with other Countries.**—As regards the size of its flocks and the quantity and quality of wool produced, Australia has long occupied a leading position amongst the sheep-raising countries of the world. As with a number of other important sheep-raising countries, it has, however, suffered a considerable reduction in sheep numbers since 1939, but still holds the leading position with 113 million sheep, followed by the U.S.S.R. (Russia) with about 80 million, Argentina with 47 million and India with 38 million.

The following table shows the number of sheep in Australia in relation to the numbers in some of the principal sheep-raising countries of the world for the last available pre-war year and at the latest date of enumeration for which figures are published. The figures have been compiled by the Commonwealth Economic Committee and the International Wool Textile Organization, who have estimated the world sheep numbers in 1949–50 at 717 million.

SHEEP : NUMBER IN VARIOUS COUNTRIES.
('000,000.)

Country.	Pre-war.		Post-war.	
	Year.	Number.	1948–49 Number.	1949–50 Number.(*c*)
Australia	**1938–39**	**111.1**	**108.7**	**112.9**
U.S.S.R. (Russia)	1938–39	(*a*) 80.0	(*d*) 67.0	(*d*) 80.0
Argentina	1938–39	45.9	(*d*) 46.0	(*d*) 47.0
India and Pakistan	1938–39	44.0	(*d*) 38.0	(*d*) 38.0
New Zealand	1938–39	31.9	32.8	33.9
Union of South Africa	1938–39	39.0	32.6	31.9
United States of America	1938–39	51.3	31.7	30.7
Turkey	1938–39	23.1	25.8	25.0
Uruguay	1936–37	17.9	(*d*) 22.6	23.0
Spain	(*b*)	(*b*)	19.0	(*d*) 20.0
United Kingdom	1938–39	26.8	18.2	19.5
China and Dependencies	1939–40	26.0	(*d*) 19.0	(*d*) 19.0
Brazil	1938–39	14.1	13.4	(*d*) 14.0
Peru	(*b*)	(*b*)	(*d*) 14.0	13.8
Yugoslavia	1938–39	10.1	(*d*) 11.0	11.7
Iran	1938–39	14.9	11.0	11.5
Bulgaria	1938–39	8.7	(*d*) 10.0	(*d*) 10.0
Italy	1938–39	9.5	9.4	9.5
Morocco (French)	1938–39	10.2	8.5	9.5
Rumania	1938–39	12.9	(*d*) 8.0	(*d*) 8.5
Iraq	1938–39	5.5	(*d*) 7.5	(*d*) 7.5
France	1938–39	9.9	7.5	7.5
Greece	1938–39	8.1	6.6	(*d*) 6.3
Chile	1935–36	5.7	(*d*) 6.0	(*d*) 6.0

(*a*) Estimated. (*b*) No recent pre-war figures available. (*c*) Provisional. (*d*) Unofficial estimate.

7. **Oversea Imports and Exports of Sheep.**—As in the case of cattle, the oversea exports of live sheep from Australia are of comparatively little importance. During the last five years the principal consignments of ordinary sheep have been made to Malaya (British) from Western Australia. On 27th November, 1929, the export of stud sheep was prohibited, except with the approval of the Minister for Trade and Customs.

Sheep for breeding purposes, however, were being exported in increasing numbers up to the outbreak of war in the Pacific, and shipments in 1939–40 amounted to 23,329 sheep, valued at £79,955, compared with 1,351, valued at £24,038, in 1949–50. The chief countries to which sheep for breeding purposes were consigned in 1939–40 were New Zealand, South Africa, Japan and Korea and, in 1949–50, to New Zealand and Japan. The ordinary flock sheep exported from Australia were, for the most part, consigned to Malaya and the Pacific Islands. The following table shows the imports and exports of breeding and flock sheep for the years 1945–46 to 1949–50 compared with the average for the years 1934–35 to 1938–39.

SHEEP: IMPORTS AND EXPORTS, AUSTRALIA.

Year.	Imports.		Exports.		Net Exports.	
	No.	Value.	No.	Value.	No.	Value.
		£		£		£
Average, 1934–35 to 1938–39	3,795	30,435	65,188	67,368	61,393	36,933
1945–46 ..	740	23,230	21,857	35,496	21,117	12,266
1946–47 ..	804	25,431	80,380	125,305	79,576	99,874
1947–48 ..	702	17,612	79,538	145,418	78,836	127,806
1948–49 ..	303	11,600	84,278	207,342	83,975	195,742
1949–50 ..	260	9,524	96,595	244,676	96,335	235,152

8. **Sheep Slaughtered.**—The following table shows the numbers of sheep slaughtered in the several States during each of the years ended June, 1946 to 1950 compared with the average for the years ended June, 1935 to 1939:—

SHEEP (INCLUDING LAMBS) SLAUGHTERED.
('000.)

Year.	Slaughterings passed for Human Consumption.									Total Slaughterings including Boiled Down.
	N.S.W.	Vic.	Qld.	S.A.	W.A.	Tas.	N.T.	A.C.T.	Total.	
Average, 1934–35 to 1938–39 ..	*a* 6,474	7,797	1,101	*b* 1,703	*b* 1,178	358	(*b*) ..	25	18,636	18,693
1945–46 ..	7,206	5,057	1,465	1,438	1,369	432	2	45	17,014	17,086
1946–47 ..	6,904	6,305	1,167	1,625	1,416	393	2	49	17,861	17,894
1947–48 ..	5,743	6,242	1,036	1,755	1,442	376	3	46	16,643	16,672
1948–49 ..	6,456	6,692	994	2,208	1,515	420	3	48	18,336	18,384
1949–50 ..	6,787	8,366	959	2,284	1,347	508	3	59	20,313	20,386

(*a*) Year ended March. (*b*) Year ended previous December.

9. **Production of Mutton and Lamb.**—Details of the production of mutton and lamb in each State and Territory are shown below:—

PRODUCTION OF MUTTON AND LAMB.
(Tons.)

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T.	Total.
Average, 1934–35 to 1938–39 ..	103,706	135,149	20,166	29,710	20,476	6,035	1	396	315,639
1945–46	122,278	86,615	24,913	25,989	22,170	7,909	36	752	290,662
1946–47	110,097	111,684	18,656	31,574	22,545	7,162	51	817	302,586
1947–48	102,818	108,610	18,664	33,289	24,120	6,906	59	814	295,280
1948–49	114,338	114,738	18,440	39,452	24,872	7,574	83	886	320,383
1949–50	119,815	148,254	17,673	39,913	22,446	8,926	57	1,049	358,133

10. **Consumption of Mutton and Lamb.**—For the three pre-war years 1936–37 to 1938–39 the annual production of mutton and lamb averaged 319,000 tons of which 89,000 tons were exported leaving a balance of 230,000 tons (or the carcass equivalent of 74.9 lb. per head per annum) available for consumption.

During the war the demand for meat by Australian and Allied Services and the desire to maintain, as far as possible, exports to the United Kingdom necessitated the restriction of local consumption by the introduction, in January, 1944, of a system of rationing.

As the service and export demand was principally for beef this class of meat was in shorter supply to civilians than was mutton or lamb. As a result, the coupon rating for beef fixed under the civilian ration scale was more restrictive, and had the effect of increasing the quantity of mutton and lamb entering civilian consumption to a level approximating that of beef. In 1946–47, however, mutton and lamb consumption declined to below the pre-war level as a result of heavy shipments overseas and decreased slaughterings. Consumption per head rose slightly from 67.8 lb. in 1946–47 to 69.8 lb. in 1947–48 and to 73.1 lb. in 1948–49, remained stationary at 73.1 lb. in 1949–50 but dropped to 65.2 lb. in 1950–51.

In the following table details of the production and disposal of mutton and lamb are shown for the periods stated :—

PRODUCTION AND DISPOSAL OF MUTTON AND LAMB (BONE-IN WEIGHT) : AUSTRALIA.

('000 tons.)

Year.	Changes in Stock.	Production.	Exports.	For Canning and Dehydration.	Consumption in Australia as Human Food.	
					Total.	Per Head per annum.
						lb.
Average, 1936–37 to 1938–39	..	319	89	..	230	74.9
1946–47	− 9	303	73	11	228	67.8
1947–48	− 5	295	55	7	238	69.8
1948–49	+ 8	321	52	7	254	73.1
1949–50	− 5	358	86	14	263	73.1
1950–51(*a*)	+ 4	277	24	7	242	65.2

(*a*) Subject to revision.

11. **Exports of Frozen Mutton and Lamb.**—The export trade in mutton and lamb preserved by cold process expanded rapidly to 1913 when 205 million lb. were shipped. Progress was interrupted during the 1914–18 War and, owing probably to high wool prices, the exports of mutton and lamb for a number of years after were considerably less than earlier shipments. Exports commenced to rise again in 1929–30 and from that year onwards they continued to expand almost uninterruptedly until 1942–43, in which year 203,681,520 lb. of mutton and lamb, valued at £5,495,886, were exported. In earlier years shipments consisted mainly of frozen mutton, but in 1923–24 lamb supplanted mutton and the exports of lamb were largely responsible for the increase in total shipments during the ten years to 1942–43. Due to reduced production as a result of drought conditions and the diversion of supplies to meet the requirements of the Australian and Allied Services based in Australia, there was subsequently a marked decline in mutton and lamb exports, which fell to 56,574,651 lb., valued at £1,540,419, in 1945–46. Exports rose steeply to 164,302,923 lb. (£4,543,764) in 1946–47, but fell again in 1947–48 to 122,482,889 lb. (£4,248,695). In 1948–49, exports fell further to 114,863,908 lb. (£4,222,173) but rose considerably to 193,091,827 lb. (£7,452,675) in 1949–50.

The quantities and value of exports of frozen mutton and lamb in each year 1945–46 to 1949–50 compared with the average for the five years ended 1938–39 are shown in the following table :—

EXPORTS OF FROZEN MUTTON AND LAMB : AUSTRALIA.

Year.	Exports of Frozen Mutton.		Exports of Frozen Lamb.		Exports of Frozen Mutton and Lamb.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
	lb.	£	lb.	£	lb.	£
Average, 1934–35 to 1938–39 ..	40,583,651	656,194	153,606,462	4,208,318	194,190,113	4,864,512
1945–46 ..	17,527,848	362,057	39,046,803	1,178,362	56,574,651	1,540,419
1946–47 ..	52,208,402	912,292	112,094,521	3,631,472	164,302,923	4,543,764
1947–48 ..	19,394,136	447,278	103,088,753	3,801,417	122,482,889	4,248,695
1948–49 ..	27,509,096	651,082	87,354,812	3,571,091	114,863,908	4,222,173
1949–50 ..	69,743,976	1,694,984	123,347,851	5,757,691	193,091,827	7,452,675

As with beef, the principal customer in this trade is normally the United Kingdom. In 1949–50 exports of mutton and lamb to the United Kingdom amounted to 91.6 per cent. and 93.5 per cent., respectively, of the total quantities exported.

§ 5. Wool.

1. **General.**—Australia is the leading wool-growing country in the world. With less than one-sixth of the world's sheep Australia produces one-quarter of the world's wool and of the total fine-quality merino wool, Australia produces about one-half. The bulk of the production is exported, but with the greater activity of Australian woollen mills the quantity used locally is increasing ; the amount so used represented more than 8 per cent. of the total production in 1949–50 compared with 7 per cent. in 1938–39.

The important position held by Australia among the principal sheep and wool producing countries of the world is shown in the following table. Further particulars of wool production in principal countries and of world production of wool by type are included in paragraph 6, World Wool Production.

SHEEP AND WOOL : PRINCIPAL PRODUCING COUNTRIES, 1949–50.

Country.	No. of Sheep ('000,000).	Wool Production ('000,000 lb. in terms of greasy).
Australia	**112.9**	**1,110**
Argentina	(a) 47.0	415
New Zealand	33.9	390
United States of America	30.7	264
U.S.S.R. (Russia)	(a) 80.0	290
Union of South Africa	31.9	213

(a) Unofficial estimate.

Source : Commonwealth Economic Committee and International Wool Textile Organization.

2. **Greasy and Scoured Wool.**—Whether the weight of the wool clip should be stated as " in the grease " or as " scoured and washed " is a matter which seriously affects comparisons between the clips of different seasons and of different countries. The quantity of grease and other extraneous matter in a fleece differs, not only between countries, but between districts in the same country. It fluctuates with the vagaries of the season, and with the breed and the condition of the sheep. There is, moreover, no clearly defined standard in regard to the clean content of wool described as scoured and washed.

A committee of experts in a report to the Central Wool Committee estimated in 1940 that the clean scoured wool content of the total production of Australia averaged between 51 and 53 per cent. of its greasy weight.

Wool scoured in Australia by wool-scouring works, however, yields only about 46 per cent. because the grade of greasy wool treated locally for export as scoured includes a large proportion of dirty and low-grade wool.

The quantity of scoured and washed Australian wool exported during the five years ended 1949–50 was approximately 16.9 per cent. of the total wool exports regarded as " greasy ".

3. **Production.**—The bulk of the Australian wool production is shorn from live sheep; approximately 6 per cent. is obtained by fellmongering and about 5 per cent. is on skins exported. Statistics of wool production are compiled from data received from growers, fellmongers, etc. The following table shows the production for the five years 1945–46 to 1949–50 compared with average production for the five years ended 1938–39. Particulars of the gross value of wool produced in Australia are also shown; for the pre-war years and for 1946–47 and later years these values are based upon the average price of greasy wool sold by brokers in Australia, while for 1943–44 to 1945–46 they are based upon the average appraised value plus certain adjustments as computed by the State Statisticians.

GREASY WOOL : TOTAL PRODUCTION.

State.	Average, 1934–35 to 1938–39.	1945–46.	1946–47.	1947–48.	1948–49.	1949–50.
	'000 lb.	'000 lb.	'000 lb.	'000 lb.	'000 lb.	'000 lb.
New South Wales ..	480,670	431,549	432,621	422,260	463,208	515,043
Victoria	165,586	152,398	197,076	191,004	195,404	216,639
Queensland	164,971	173,249	144,820	143,200	147,767	153,892
South Australia	85,120	73,604	93,020	103,076	105,461	106,707
Western Australia (*a*) ..	81,543	86,986	90,255	95,410	99,429	98,889
Tasmania	15,504	16,338	16,643	15,326	16,846	16,958
Northern Territory (*b*) ..	35	155	305	305	305	230
Australian Capital Territory	1,827	1,960	2,038	1,767	1,977	2,123
Total—Quantity ..	995,256	936,239	976,778	973,038	1,030,397	1,110,481
	£'000.	£'000.	£'000.	£'000.	£'000.	£'000.
Value (*c*) ..	51,182	58,597	96,858	156,998	201,972	288,623

(*a*) For year ended previous December. (*b*) Estimated. (*c*) Subject to revision.

Production for 1950–51 was 1,093 million lb., valued at £651,396,000 (subject to revision).

4. **Care Needed in Comparing Clips.**—In comparing successive clips allowance must be made for the circumstance that, owing to climatic or other conditions, the time of shearing may be so far delayed in some areas that one clip may include almost thirteen months' growth of wool, while the succeeding one may include little more than eleven months' growth.

5. **Average Weights of Fleeces Shorn.**—The average weights of sheep and lamb fleeces shorn in each of the States of Australia and the Australian Capital Territory are shown in the following table for the five seasons 1934–35 to 1938–39 and each season 1945–46 to 1949–50 :—

AVERAGE WEIGHT OF SHEEP AND LAMB FLEECES SHORN.

(lb.)

State.	Average, 1934–35 to 1938–39. (a)	1945–46.	1946–47.	1947–48.	1948–49.	1949–50.
			SHEEP.			
New South Wales ..	8.87	9.24	9.97	9.88	9.97	9.82
Victoria	7.84	7.50	9.97	9.33	8.90	9.31
Queensland	7.98	8.62	8.20	8.80	9.02	9.30
South Australia	10.06	9.10	11.51	11.26	10.58	10.61
Western Australia ..	8.53	8.53	8.70	9.43	9.43	8.97
Tasmania	7.62	6.75	7.73	8.30	8.03	7.64
Australian Capital Territory	8.32	8.56	9.37	8.74	9.29	9.36
Australia (b) ..	8.57	8.72	9.56	9.63	9.57	9.59
			LAMB.			
New South Wales ..	2.75	2.89	3.03	3.10	3.29	3.20
Victoria	2.14	2.19	2.64	2.71	2.74	2.59
Queensland	2.89	3.44	3.23	3.55	3.77	3.60
South Australia	2.57	2.56	3.03	3.60	3.23	3.04
Western Australia ..	2.57	2.53	2.55	2.70	2.68	2.62
Tasmania	1.37	1.47	1.78	1.98	1.91	1.76
Australian Capital Territory	1.11	1.28	1.49	1.26	1.51	1.17
Australia (b) ..	2.57	2.73	2.87	3.04	3.11	2.99

(a) Mean of average weights in each season. (b) Excludes Northern Territory.

6. **World Wool Production.**—The following table shows particulars of total production of wool in terms of greasy in the principal wool-producing countries of the world, together with estimates of world production of merino, crossbred and carpet type wool for the five seasons 1934–38 and 1946–47 to 1949–50. The data for countries other than Australia have been taken from reports published by the Commonwealth Economic Committee compiled from questionnaires prepared by the Committee and the International Wool Textile Organization.

In 1949–50 Australia produced 29 per cent. of the world total of all types of wool, the share of the British Commonwealth exceeding 50 per cent. The principal wool producers other than Australia are Argentina with 11 per cent. of the world total, New Zealand, 10 per cent., United States of America, 7 per cent., U.S.S.R. (Russia), 8 per cent., and Union of South Africa, 6 per cent. World production of wool (all types) in 1949–50 was about 46 million lb. (1.2 per cent.) greater than the average for 1934–38.

Australia's wool clip is predominantly merino ; New Zealand and Argentina produce mainly crossbred wool, while the clip of the U.S.S.R. (Russia) is largely of the carpet type. While world production of merino wool has declined by about 3.8 per cent since pre-war, the production of crossbred types has risen by about 6.6 per cent. Carpet wool production has fallen by about 1.3 per cent.

WORLD PRODUCTION OF WOOL.

('000,000 lb.—in terms of greasy.)

Country and Type.	Average 1934–38.	1946–47.	1947–48.	1948–49.	1949–50.(a)
Commonwealth—					
Australia	**995**	**977**	**973**	**1,030**	**1,110**
New Zealand	300	367	362	367	390
South Africa(b) ..	261	221	215	216	213
United Kingdom ..	111	93	75	81	88
India	96	55	55	55	55
Pakistan		24	24	24	24
Canada	18	17	14	12	10
Other Commonwealth ..	10	9	8	8	7
Ireland, Republic of ..	17	15	13	12	12
Total	1,808	1,778	1,739	1,805	1,909
Foreign—					
Argentina	376	493	460	425	415
U.S.S.R. (Russia) (c) ..	219	237	250	280	290
United States of America d	451	362	328	296	264
Uruguay	114	174	150	144	163
Spain	60	80	88	104	90
Turkey	52	69	71	76	71
Chile	33	43	44	45	45
Brazil	39	50	41	40	39
Yugoslavia	33	30	32	34	36
France	53	33	34	35	35
Italy	31	29	32	35	35
Roumania	45	26	26	28	30
French Morocco ..	42	20	25	26	20
Germany (e)	39	12	12	12	15
Other Asia	199	191	189	200	187
Other Europe	113	91	98	109	115
Other America ..	44	45	47	49	50
Other Africa	37	22	23	28	25
Total	1,980	2,007	1,950	1,966	1,925
Grand Total ..	3,788	3,785	3,689	3,771	3,834
Apparel type—					
Merino	1,475	1,263	1,260	1,303	1,341
Crossbred	1,518	1,750	1,651	1,662	1,705
Carpet type	795	772	778	806	788

(a) Provisional. (b) Includes Basutoland and S.W. Africa Territory. (c) Includes Baltic Republics of Estonia, Latvia and Lithuania. (d) Pulled wool converted to a greasy basis. (e) Federal Republic only, from 1946–47. Estimate for Eastern Germany included in "Other Europe".

7. **War-time Contracts.**—(i) *Wool.* Details of the contract entered into between the Governments of Australia and the United Kingdom for the purchase of the surplus wool clip of Australia for the duration of the war and one full clip thereafter (1939–40 to 1945–46) will be found in Official Year Book No. 36, page 1106.

(ii) *Sheepskins.* Details of the war-time contract arrangements for the period April, 1940 to June, 1946 between the Australian and United Kingdom Governments for the purchase of Australia's exportable surplus of woolled sheepskins will be found in Official Year Book No. 37, page 875.

8. **Australian Wool Realization Commission.**—(i) *General.* The accumulation of Dominion wool in the hands of the United Kingdom Government as an outcome of the war-time arrangements and the disposal of these stocks concurrently with future clips were matters for discussion by a conference of officials and experts from the United Kingdom, the Commonwealth of Australia, the Dominion of New Zealand, and the Union of South Africa, held in London in April–May, 1945. At this conference it was decided that the only sound method of handling the gigantic task of disposing of these stocks was by means of a partnership between the countries concerned, under which the old wool would be marketed and the marketing of the current clip supported throughout the period of disposal of stocks. To ensure that stability of wool prices would be achieved, a reserve price appropriate to type and governed by the general trend of prices, and at which the wool would be bought in if commercial bidding did not attain the appropriate level, was agreed upon.

(ii) *United Kingdom-Dominion Wool Disposals Limited.* The formation, by the four Governments, of a Joint Organization under the title of "United Kingdom-Dominion Wool Disposals Limited" (commonly referred to as "J.O.") was, therefore, undertaken for the purposes of buying, holding and selling wool on behalf of the United Kingdom and the Dominion Governments concerned. The Australian Wool Realization Commission is the Australian subsidiary of this organization. An account of the detailed provisions of the plan and of the functions and operations of the Australian Wool Realization Commission was given on pages 921–3 of the previous issue of the Year Book, No. 38. An interim distribution of £23.6 million was made in November, 1949 to Australian wool-growers from profits arising from the Wool Disposals Plan.

(iii) *Stocks.* (*a*) *Total held by Joint Organization.* The stock of Dominion-grown wool in the ownership of the United Kingdom Government at 31st July, 1945 was transferred to the joint ownership of the United Kingdom Government and the Dominion Government concerned, and all wool subsequently acquired under the scheme was in the joint ownership of the United Kingdom and the Dominion concerned. Total stocks of United Kingdom wool transferred to the Joint Organization at 31st July, 1945 were :—

	Bales.
Australian-grown wool	6,796,000
New Zealand-grown wool	1,777,000
South African-grown wool	1,834,000
Total	10,407,000

By 30th June, 1951 these stocks had been reduced to 17,856 bales, whose origins, locations and types are shown in the following table :—

WOOL STOCKS HELD BY JOINT ORGANIZATION, 30th JUNE, 1951.

(Bales.)

Origin and Location of Stocks.	Type of Wool.			Total.
	Greasy.	Scoured.	Carbonized.	
Australian-grown wool—				
Held in Australia	4	2	..	6
„ United Kingdom	4,430	7,420		11,850
Total	4,434	7,422		11,856
New Zealand-grown wool—				
Held in New Zealand	4,500	..	..	4,500
„ United Kingdom	330	100	(*a*) 1,070	1,500
Total	4,830	100	1,070	6,000

(*a*) Slipe.

(*b*) *Total held in Australia.* In the next table details are shown of the stocks of wool held in Australia by the Central Wool Committee and its successor, the Australian Wool Realization Commission, on the dates specified. The quantities, which distinguish between greasy, scoured and carbonized, refer to the amount of appraised wool actually held in store in Australia. Wool held by brokers prior to appraisement and any held by woollen mills or growers is not included.

STOCKS OF APPRAISED WOOL HELD IN STORE IN AUSTRALIA.

(Source : Australian Wool Realization Commission.)

('000 lb.)

31st July—	Greasy.	Scoured.	Carbonized.
1940	127,134	13,640	2,017
1941	376,444	82,329	8,781
1942	397,051	75,896	6,296
1943	758,288	125,555	12,271
1944	1,141,777	155,534	13,512
1945	1,321,387	176,295	13,325
1946	1,072,771	164,021	8,712
1947 (*a*)	675,110	104,710	3,199
1948 (*a*)	517,303	73,236	239
1949 (*a*)	253,061	42,591	12
1950 (*a*)	56,206	11,512	..
1951 (*a*)	1	1	..

(*a*) 30th June.

(iv) *The Contributory Charge.* Associated legislation, viz., the Wool (Contributory Charge) Act 1945 and the Wool (Contributory Charge) Assessment Act 1945 provides for a contributory charge to be imposed on all wool—

- (*a*) produced in Australia ; and
- (*b*) on or after a date to be fixed by proclamation—
  - (i) sold by a broker at auction or otherwise ;
  - (ii) purchased by a manufacturer ;
  - (iii) subjected by a manufacturer (whether or not he is the producer or owner of the wool) to a process of manufacture ; or
  - (iv) exported from Australia ;

the rate of the charge to be such percentage as is prescribed from time to time of the sale value of the wool, the percentage being such as is necessary to provide the amounts required to meet the share of the industry in the operating expenses of the Joint Organization, the payment of interest on moneys expended by the Commonwealth in purchases of wool in pursuance of the Disposals Plan and unrecouped, and payment into the Wool Use Promotion Fund as provided under the Wool Use Promotion Act 1945. The plan did not require that the Contributory Charge should operate during the 1945–46 season. For further particulars of the Wool Contributory Charge and the amounts collected *see* Chapter XVII.—Public Finance, pages 770–1.

(v) *Wool classified according to Quality.* It has not been possible to undertake any analysis of the wool produced in Australia because the data necessary to make such a tabulation effective were lacking. Under war-time control, however, records were kept which made it possible to classify each lot appraised according to quality, degree of fault and combing or carding type for each of the years 1940–41 to 1945–46.

Since the resumption of auctions in 1946–47 this analysis has been continued by the Australian Wool Realization Commission, but the basis of the data has been changed to the catalogues of auction sales, excluding wool to which Joint Organization's reserves were not applicable, and not upon appraisement as previously. The following table provides a detailed analysis of wool appraised or sold at auction according to quality, for the years 1947–48 to 1950–51 compared with 1940–41, according to the records compiled by the Australian Wool Realization Commission. " Quality " (" 64's, 60's, 58's ", etc.) is a measure of the fineness and texture of wool for spinning purposes. Broadly, it means the maximum number of hanks of yarn, each of 560 yards length, which can be spun from 1 lb. of combed wool. For instance, wool of 64's quality is of a fineness and texture which will produce 64 hanks, each of 560 yards, from 1 lb. of tops (combed wool) of that particular wool.

CLASSIFICATION OF GREASY WOOL APPRAISED OR SOLD AT AUCTION: AUSTRALIA.

(Bales of approximately 300 lb.).

Predominating Quality.	1940–41.(*a*)		1947–48.(*b*)		1948–49.(*b*)		1949–50.(*b*)		1950–51.(*b*)	
	Quantity.	Per cent.	Quantity.	Per cent.	Quantity.	Per cent.	Quantity.	Per cent.	Quantity.	Per cent.
70's and finer	200,951	6.2	106,061	3.7	143,742	4.7	132,931	4.0	124,877	3.7
64/70's ..	679,377	20.8	396,968	13.9	498,285	16.4	518,492	15.4	523,670	15.6
64's ..	869,117	26.7	470,819	16.5	558,785	18.4	618,226	18.4	625,749	18.6
64/60's ..	236,138	7.2	254,726	8.9	265,159	8.7	305,412	9.1	296,029	8.8
60/64's ..	408,534	12.5	435,228	15.2	422,161	13.9	524,380	15.6	525,883	15.7
60's and 60/58's ..	387,164	11.9	397,994	13.9	353,373	11.6	415,646	12.3	427,673	12.7
Total 60's and finer	2,781,281	85.3	2,061,796	72.1	2,241,505	73.7	2,515,087	74.8	2,523,881	75.1
58's ..	270,371	8.3	324,153	11.3	340,606	11.2	369,930	11.0	371,143	11.1
56's ..	135,232	4.2	278,930	9.7	288,717	9.5	307,876	9.2	300.375	9.0
50's ..	39,619	1.2	132,247	4.6	115,075	3.8	114,482	3.4	112,295	3.3
Below 50's	21,089	0.6	45,289	1.6	37,583	1.3	31,413	0.9	27,978	0.8
Oddments..	12,955	0.4	20,118	0.7	17,577	0.5	21,918	0.7	23,107	0.7
Grand total	3,260,547	100.00	2,862.533	100.00	3,041,063	100.00	3,360,706	100.00	3,358,779	100.00

(*a*) Appraised greasy wool. (*b*) Greasy wool sold at auction, excluding that to which Joint Organization's reserves were not applicable.

9. **Post-war Marketing of Wool.**—(i) *Minimum Reserve Price Plan.* A plan designed to continue reserve price operations on the termination of the Wool Disposals Plan, administered by the Joint Organization, was completed by the Governments of Australia, New Zealand, South Africa, and the United Kingdom in May, 1951. The plan was evolved following prolonged negotiations in which wool-growers' organizations in the three Dominions participated. It provided for the establishment of an organization to recommend reserve prices to participating Governments, to buy wool at these prices when commercial buyers were not prepared to do so, and to arrange for the later re-offering of wools so purchased. The scheme was to have operated initially for five years from 1951–52. The necessary funds to operate the plan were to be provided by each participating country whilst the Governments of the three Dominions agreed to provide guarantees if the initial capital should become absorbed in the purchase of wool. In Australia the initial funds were to be provided by the wool-growing industry, and to raise this money the Commonwealth Government imposed a levy of 7¼ per cent. on sales of wool in the 1950–51 season. From this levy about £45,000,000 was obtained. The completed plan was endorsed by the Commonwealth Government subject to its approval at a referendum of wool-growers. This referendum was held in August, 1951, when the majority of growers voted against the plan. Following rejection of the plan, the moneys collected by levy are being refunded to growers

(ii) *Subsidy on Woollen Goods*, 1950–51. In order to reduce the effects of greatly increased wool prices in the 1950–51 season (*see* para. 14 following), the Commonwealth Government paid a subsidy on woollen goods manufactured for consumption in Australia from wool sold during the 1950–51 season. The subsidy was equivalent to about 45d. per lb of all greasy wool (1950–51 clip) consumed in Australia, the total amount paid being approximately £17,000,000.

10. **Wool Publicity and Research.**—(i) *Wool Use Promotion.* Under the Wool Use Promotion Act 1945, provision was made for improving the production and increasing the use of wool. The Australian Wool Board was reconstituted and its functions (which previously included the administration and supervision of economic and scientific research) were defined as the promotion, by publicity or other means, of the use of wool throughout the world and the performance of other approved functions for the benefit of the industry.

The Board is represented on the International Wool Publicity and Research Secretariat, which was established in 1937 with head-quarters in London, by the Wool Boards of Australia, New Zealand and South Africa. The Wool Boards contribute jointly to the expenses of the Secretariat, whose main functions are to promote the use of wool through a broad programme of publicity, education and research. The Wool Bureau Incorporated, which comprises the same interests in partnership with American wool industry representatives, undertakes similar functions in the United States of America.

The activities of the Australian Wool Board are financed from the Wool Use Promotion Fund. The Wool Tax Act 1945 imposed a tax at the rate of 2s. per bale to provide this fund. This tax is not payable at present but an equivalent sum—approximately £350,000 per annum—is provided from the Wool Contributory Charge.

(ii) *Research.* In the field of wool research, the Commonwealth Scientific and Industrial Research Organization is responsible for scientific, technical, and biological research into sheep raising and wool production, as well as wool textile research. Economic wool research is the responsibility of the Bureau of Agricultural Economics, a division of the Commonwealth Department of Commerce and Agriculture. The economic research work falls into two main categories, viz., farm production economics dealing with economics of woolgrowing and sheep-station management generally, and commodity research dealing with the economic aspects of the wool industry in Australia and of wool as a commodity in world trade.

Finance for research is provided from a Wool Research Trust Account into which is paid annually from the Commonwealth Consolidated Revenue a sum equal to the amount which is raised by the Wool Tax or its equivalent. In addition, expenditure on items of a capital nature for the research programme may be met from the Wool Industry Fund which was constituted as a Trust Account from various moneys accumulated by the Central Wool Committee in war-time.

Ample opportunity is afforded for co-operation, in these research activities, with State Departments of Agriculture and other organizations.

11. **Consumption of Locally Processed Wool.**—Reliable estimates of the total consumption of wool in Australia are not available as quantities of manufactured woollen goods are imported whose contents in terms of wool cannot be ascertained. It is possible, however, to secure with reasonable accuracy the quantities of wool used in Australian factories and mills to produce woollen cloth and other woollen goods, such as blankets, rugs and knitted wear. Some difficulties arise in the aggregation of returns from individual mills concerned with only one process in manufacture and whose output constitutes the raw material of other mills, but the risk of duplication has been reduced to a minimum. Reference is made to the woollen mills established in Australia in Chapter XXIV.—Manufacturing Industry.

The factors used to convert scoured wool and woollen yarn processed in Australia into their greasy equivalent are now computed from the data furnished by woollen mills. In 1949–50 these factors were :—1 lb. of worsted yarn was taken to equal 2.10 lb. of greasy while the greasy equivalent of 1 lb. of scoured wool was 1.71 lb.

In the following table particulars are shown of the quantity of wool processed in Australian woollen mills, cotton mills, hosiery mills and other factories during the years 1938–39 and 1945–46 to 1949–50 :—

CONSUMPTION OF LOCALLY PROCESSED WOOL IN AUSTRALIA.

('000 lb.—in terms of greasy.)

Year.	Woollen Mills.	Cotton Mills.	Hosiery Mills.	Other Factories.	Total.
1938–39	52,376	533	13,327	2,208	68,444
1945–46	62,127	355	15,012	9,417	86,911
1946–47	60,672	343	17,302	10,345	88,662
1947–48	66,118	648	18,672	14,025	99,463
1948–49	66,222	632	21,912	13,620	102,386
1949–50	62,232	515	19,664	9,254	91,665

12. **Exports of Wool.**—(i) *Greasy—Quantities.* Prior to the 1939–45 War, greasy wool exported overseas was sent principally to the United Kingdom and other European countries. In 1938–39, 41.9 per cent. of total shipments were sent to the United Kingdom, other important consignees being France, 20.4 per cent., Belgium, 13.1 per cent., and Japan, 9.1 per cent. During the war, exports to the United Kingdom declined and shipments to the European continent and to Japan virtually ceased, while the quantity shipped to the United States of America showed great expansion. Of the total quantity of greasy wool exported overseas during the five years ended 1949–50, 19.8 per cent. was sent to the United States of America and 31.5 per cent. to the United Kingdom. Of the total shipments in 1949–50, 35.9 per cent. went to the United Kingdom, 13.5 per cent. to France, 11.0 per cent. to the United States of America, and 11.4 per cent. to Belgium. The following table shows the quantities of greasy wool exported, and the principal countries of recorded destination.

EXPORTS OF GREASY WOOL : AUSTRALIA.

('000 lb.)

Country to which Exported.	Average, 1934–35 to 1938–39.	1945–46.	1946–47.	1947–48.	1948–49.	1949–50.
United Kingdom ..	288,436	237,312	182,493	277,401	355,403	379,804
Other British Countries	2,158	7.804	8,879	8,275	6,848	7,652
Belgium	107,928	68,692	169,301	106,419	94.944	120,913
France	100,476	89,580	186,387	155,548	195,855	142,528
Germany	36,955	..	748	18,769	16,801	53,338
Italy	21,748	5,409	108,684	38,066	104,252	66,632
Japan	131,302	..	2,351	1,834	22,561	55,392
Netherlands	12,666	..	6,931	8,052	8,974	9,969
Poland	12,396	..	1,537	5,196	29,255	36,812
United States of America	25,739	288.967	302.772	118.869	70,338	116.743
Other Foreign Countries	23,076	13,594	49,367	35,794	76,805	67,870
Total	762,880	711,358	1,019,450	774,223	982,036	1,057,653

(ii) *Scoured and Washed and Carbonized including Tops, Noils and Waste—Quantities.* The exports of "scoured and washed" wool, whether carbonized or not, including tops, noils and waste during the periods shown were as follows.

EXPORTS OF WOOL—SCOURED AND WASHED AND CARBONIZED INCLUDING TOPS, NOILS AND WASTE : AUSTRALIA.

('000 lb.)

Country to which Exported.	Average, 1934–35 to 1938–39.	1945–46.	1946–47.	1947–48.	1948–49.	1949–50.
United Kingdom ..	34,520	22,908	64,405	73,904	58,580	69,526
Canada	4,376	9,602	14,650	11,690	11,964	11,554
Other British Countries	1,201	8,318	6,537	7,660	6,094	1,929
Belgium	8,235	6,968	20,203	14,715	9,115	11,618
France	9,310	1,599	11,189	17,767	25,399	11,630
Germany	3,013	..	7	762	882	5,471
Italy	451	152	7,693	4,980	11,566	7,528
Japan	1,128	..	..	..	98	1,279
Poland	1,010	..	..	107	160	197
United States of America	921	32,086	26,776	9,034	8,716	17,154
Other Foreign Countries	5,995	12,884	39,536	23,010	23,587	25,154
Total	70,160	94,517	190,996	163,629	156,161	163,040

(iii) *Total Value of Exports.* The value of wool exported from Australia during the five years ended 1949–50 averaged 42.8 per cent. of the value of the exports of merchandise of Australian origin, and during 1949–50 the proportion was 51.5 per cent. The value during the period under review, together with the principal countries to which wool was exported, is shown in the following table.

VALUE OF WOOL EXPORTS : AUSTRALIA.

(£'000.)

Country to which Exported.	Average, 1934–35 to 1938–39.	1945–46.	1946–47.	1947–48.	1948–49.	1949–50.
United Kingdom ..	19,233	21,523	26,377	51,968	80,495	114,983
Other British Countries	703	3,727	4,740	5,720	5,804	6,248
Belgium	5,863	6,121	16,165	15,536	15,808	24,124
France	5,618	7,305	16,919	22,775	40,262	34,851
Germany	2,602	..	94	3,894	3,877	15,504
Italy	1,340	445	11,601	7,478	23,680	17,627
Japan	7,727	..	203	399	4,808	14,003
Netherlands	777	34	1,348	2,015	2,922	4,497
Poland	793	..	190	1,123	7,291	12,483
United States of America	2,252	26,949	35,705	24,453	20,722	40,166
Other Foreign Countries	1,859	3,156	12,787	13,386	25,727	28,660
Total	48,767	69,260	126,129	148,747	231,396	313,146

13. **Local Sales of Wool.**—Under pre-war conditions buyers from the United Kingdom, France, Belgium, Germany and other European countries, and from America, Japan, China and India attended the sales conducted in Sydney, Newcastle, Albury, Melbourne, Geelong, Ballarat, Brisbane, Adelaide, Perth, Hobart and Launceston. In 1946–47, following the cessation of the acquisition scheme which ended with the 1945–46 season, auction sales were resumed at these centres and commenced at Goulburn. Since the resumption of auction sales, there has been a greater quantity of wool disposed of locally, more than 95 per cent. of Australia's production being disposed of in this manner.

14. **Value.**—Wool is the chief factor in the pastoral wealth of Australia, and the nation's prosperity is largely dependent upon its satisfactory sale. During the three years ended 1950–51 the price of greasy wool sold in the selling centres of Australia averaged 85.2d. per lb. compared with the average United Kingdom contract price of 14.59d. per lb. during the years 1939–40 to 1945–46 and the average selling price of 11.5d. per lb. during the ten years ended 1938–39. The average for the nine years ended 1928–29 was 18d. per lb., and for the seven years ended 1913–14, 9d. per lb. The heavy decline in the price of wool which commenced in 1929–30 continued during the next three years. In 1933–34, prices rose in a remarkable manner, averaging 15.84d. per lb., compared with 8.72d. per lb. for the previous year, an increase of 81.6 per cent. A decline in 1934–35 was succeeded by a period of rising prices in the two years following, but in 1937–38 and in 1938–39 prices again receded.

As mentioned in paragraph 7 above, the price of wool during the 1939–45 War was determined by the British Government wool contract. The price fixed for the years 1939–40 to 1941–42 was 13.4375d. per lb., and for the years 1942–43 to 1945–46, 15.45d. per lb. With the return to auction sales since 1945–46, the average price of greasy wool sold rose to 24.49d. per lb. in 1946–47, 39.50d. per lb. in 1947–48 and 48.07d. per lb. in 1948–49. In 1949–50 it rose further to 63.35d. per lb. and in 1950–51 reached the unprecedented level of 144.19d. per lb. The average price in 1950–51 was nine times as great as the 1945–46 contract price and almost thirteen times as great as the average for the ten seasons ended 1938–39.

The effect of fluctuating wool values upon the national income is reflected in the following figures. Based upon appraisement in each State plus certain adjustments as recorded by the State Statisticians, the gross value of wool produced in Australia for 1942–43 amounted to £73,017,000 and for 1943–44 to £75,124,000 compared with £42,043,000 realized during 1938–39 under open market conditions. The value in 1944–45 and 1945–46 declined to £64,894,000 and £58,597,000 respectively, as a result of decreased production. In 1924–25 when the record pre-war price was realized, the value was £81,430,000, and in the year 1930–31, £34,804,000. With the remarkable increases in post-war wool prices, the value of production rose to £96,858,000 in 1946–47, to £156,998,000 in 1947–48, to £201,972,000 in 1948–49, to £288,623,000 in 1949–50, and to the all time record figure of £651,000,000 in 1950–51.

The following table shows the average auction-room price of greasy wool in Australia for 1938–39 and 1946–47 to 1950–51 as compiled by the National Council of Woolselling Brokers. This latter price represents the average price realized for all greasy wool of whatever type or quality marketed during the year indicated.

WOOL : AVERAGE MARKET PRICE PER LB.(a)

(d.)

Description.	1938–39.	1946–47.	1947–48.	1948–49.	1949–50.	1950–51.
Greasy	10.39	24.49	39.50	48.07	63.35	144.19

(a) Average price realized for all greasy wool of whatever type or quality marketed in Australia during the year.

15. **United Kingdom Importation of Wool.**—The important position which Australia occupies in the supply of wool to the United Kingdom is indicated in the following statement of the quantities of wool imported into that country from the principal wool-producing countries during 1938 and each year 1946 to 1950.

WOOL (a) : IMPORTS INTO UNITED KINGDOM.

Country of Origin.	1938.	1946.	1947.	1948.	1949.	1950.
	'000 lb.	'000 lb.	'000 lb.	'000 lb.	'000 lb.	'000 lb.
Australia	**365,519**	**229,668**	**292,947**	**331,927**	**472,500**	**384,155**
New Zealand	197,995	185,645	211,381	226,059	209,449	180,351
Union of South Africa . .	106,601	38,970	58,057	57,434	59,596	60,106
India	46,049	10,798	(b)20,985	23,103	27,194	30,264
Falkland Islands	1,426	2,813	4,946	4,500	4,025	4,456
Ireland, Republic of . .	8,277	1,638	5,158	5,994	6,655	8,111
Other British Countries . .	4,566	421	2,344	1,823	2,712	3,390
Argentina	79,303	4,034	8,659	4,448	4,223	2,365
Uruguay	22,073	989	1,058	19,612	28,003	30,838
Other Foreign Countries . .	49,517	281	15,050			
Total Quantity . .	881,326	475,257	620,585	674,900	814,357	704,036
Total Value (£'000 sterling)	40,996	37,744	59,882	86,227	126,781	185,746

(a) Greasy and scoured. (b) Includes Pakistan.

Australian wool represented 52.0 per cent. of the total quantity imported into the United Kingdom during the five years ended 1950. New Zealand supplied 30.8 per cent. and South Africa 8.3 per cent., while the total quantity received from British countries constituted 95.5 per cent. of all United Kingdom imports.

16. **Principal Importing Countries and Sources of Supply.**—On page 884 of Official Year Book No. 37 appeared a table which furnished, in respect of the principal importing countries, details of their production and imports of wool for 1938, together with the chief sources of supply. Complete details are not yet available for later years.

§ 6. Trade in Hides and Skins.

1. **Extent of Trade.**—In addition to the hides and skins treated locally, considerable quantities are exported: the value of cattle and horse hides, and sheep and other skins, sent overseas during the five years ended 1949–50 amounted to £66,989,920 or an average of £13,397,984 per annum.

2. **Sheepskins with Wool.**—The exports of sheepskins with wool, aggregating £37,090,737 during these five years, constitute the most important item in the values referred to in the preceding paragraph. During 1938–39 France was the largest purchaser of sheepskins with wool, taking 74 per cent. of the total consignments, while the United Kingdom ranked next with 15 per cent., followed by Germany with 7 per cent. In 1949–50, France obtained 53.2 per cent. of total exports, the United Kingdom 23.0 per cent., and the United States of America 14.5 per cent. The exports of sheepskins with wool during each of the years 1945–46 to 1949–50 compared with the average for the years 1934–35 to 1938–39 were as follows:—

EXPORTS OF SHEEPSKINS WITH WOOL: AUSTRALIA.

Particulars.	Average, 1934–35 to 1938–39.	1945–46.	1946–47.	1947–48.	1948–49.	1949–50.
Number	12,009,135	18,811,654	18,189,641	11,232,934	11,255,426	14,918,878
Value .. £	2,779,523	4,363,835	7,090,560	7,420,682	7,339,103	10,876,557

3. **Sheepskins without Wool.**—Up to 1943–44 sheepskins without wool were exported chiefly to the United States of America. During the year mentioned this country accounted for 97 per cent. of the total shipments while the remaining 3 per cent. were exported to the United Kingdom, Canada and the U.S.S.R. There has, however, since been a decline in shipments to the United States of America and an increase in the quantities shipped to the United Kingdom and other countries; in 1949–50 the United States of America received 74 per cent. of total shipments; the United Kingdom 22 per cent. and other countries 4 per cent. Quantities and values for the five years 1945–46 to 1949–50 compared with the average for the years 1934–35 to 1938–39 are shown in the table hereunder:—

EXPORTS OF SHEEPSKINS WITHOUT WOOL: AUSTRALIA.

Particulars.	Average, 1934–35 to 1938–39.	1945–46.	1946–47.	1947–48.	1948–49.	1949–50.
Number	807,690	2,850,201	2,538,287	906,512	814,315	3,441,317
Value .. £	69,600	243,126	439,059	148,675	107,667	826,110

4. **Hides.**—(i) *Exports.* The export trade in cattle hides during 1949–50 was distributed as follows:—Poland, £333,913; Turkey, £235,374; Japan, £183,286; Germany, £159,132; United Kingdom, £113,032; and other countries, £315,414.

The exports during each of the five years 1945–46 to 1949–50 compared with the average for the years 1934–35 to 1938–39 are shown in the table below :—

EXPORTS OF CATTLE HIDES: AUSTRALIA.

Particulars.		Average, 1934–35 to 1938–39.	1945–46.	1946–47.	1947–48.	1948–49.	1949–50.
Number ..	..	956,552	189,863	117,164	101,681	270,514	272,197
Value ..	£	791,730	229,542	328,713	312,562	1,177,040	1,340,471

Calfskins exported during the five years ended 1949–50 numbered 48,674, valued at £38,483. Exports of horse hides during the same period numbered 182,069, valued at £451,174.

(ii) *Imports.* The imports of cattle hides and calfskins are fairly large, the chief source of supply being New Zealand and the Pacific Islands. The quantities and values of cattle hides, including calfskins, imported into Australia during the years 1945–46 to 1949–50 compared with the average for the years 1934–35 to 1938–39 were as follows :—

IMPORTS OF CATTLE HIDES AND CALFSKINS: AUSTRALIA.

Particulars.		Average, 1934–35 to 1938–39.	1945–46.	1946–47.	1947–48.	1948–49.	1949–50.
Quantity ..	cwt.	70,781	60,600	62,615	26,554	14,245	13,490
Value ..	£	278,658	416,205	729,119	213,367	81,520	76,231

5. **Furred Skins.**—The exports of furred skins were valued as follows :—

EXPORTS OF FURRED SKINS: AUSTRALIA.

(£.)

Description.	Average, 1934–35 to 1938–39.	1945–46.	1946–47.	1947–48.	1948–49.	1949–50.
Rabbit	1,150,463	*a*6,290,938	*a*6,074,886	*a*3,958,173	*a*3,004,287	*a*1,640,492
Opossum	124,627	86,903	97,377	15,176	6,943	44,103
Kangaroo	173,128	477,330	1,238,397	366,904	407,866	187,182
Fox	57,803	52,845	15,258	7,369	4,945	6,516
Wallaby	17,584	26,570	41,828	14,380	5,421	6,103
Other	11,215	2,191	3,381	1,129	276	4,035
Total ..	1,534,820	6,936,777	7,471,127	4,363,131	3,429,738	1,888,431

(*a*) Includes hare skins.

These skins were shipped principally to the United States of America, the United Kingdom and Canada, the values taken by each in 1949–50 being shown in the following table :—

FURRED SKINS : EXPORTS TO PRINCIPAL COUNTRIES OF DESTINATION, 1949–50.

(£.)

Country.	Rabbit Skins.(a)	Kangaroo Skins.	Fox Skins.	Other (Opossum, Wallaby, etc.).	Total.
United Kingdom ..	33,180	16,013	6,410	11,153	66,756
United States of America ..	1,435,813	170,957	..	42,330	1,649,100
Canada	47,352	..	..	460	47,812
Other Countries	124,147	212	106	298	124,763
Total	1,640,492	187,182	6,516	54,241	1,888,431

(a) Includes hare skins.

6. **Marketing of Hides and Skins.**—(i) *Sheepskins with Wool.* Details of the war-time agreement between the United Kingdom and Commonwealth Governments for the purchase by acquisition of the "exportable surplus" of woolled sheepskins in Australia were given in Official Year Book No. 37, page 886. The contract expired on 30th June, 1946, and sheepskins are marketed at open auction.

(ii) *Sheep and Lamb Pelts.* Details of the marketing control of sheep and lamb pelts were given in Official Year Book No. 38, page 930. Pelts have reverted to open marketing without export restrictions.

(iii) *Hides and Leather.* A hide acquisition and marketing scheme has been in operation since November, 1939. Until 31st December, 1948, the scheme operated under the National Security Regulations. Since 1st January, 1949, it has continued under a Commonwealth Act and six supporting State Acts.

The Australian Hide and Leather Industries Board, which administers the scheme, acquires all cattle hides, yearling and calf skins at prices from 15 per cent. to 20 per cent. above August, 1939 levels, and these are allocated to tanners at these prices. Surplus hides are disposed of by tender or open auction. The Board retains the amounts realized in excess of appraised values, and supplements the price to the producers in cases where the realized amount is less than the appraisement values.

Pre-war, about 40 to 45 per cent. of Australian production was exported, but with the development of the local tanning industry, the proportion is approximately 12½ per cent.

Returns from export sales of hides and deferred payments levied on leather exported based on the difference between world and Australian prices for the hides involved are paid into a fund by the Board. From this fund, premiums are paid to producers as a proportion of appraised values. These premiums compensate hide producers to some extent for the margin between local and oversea prices. Further details of the war-time operations of the scheme will be found in Official Year Book No. 37, page 887 and Official Year Book No. 38, pages 930–1.

(iv) *Rabbit Skins.* A marketing control scheme for rabbit skins was introduced under the National Security (Rabbit Skins) Regulations on 10th June, 1940 and terminated in April, 1949. Details of the scheme will be found in Official Year Book No. 38, page 931.

§ 7. Tallow.

1. **Production.**—Australia's production of tallow is in excess of local requirements and considerable quantities are normally available for export. The recorded production in factories is incomplete as production in establishments which do not come within the definition of a factory is excluded. More complete details, but on a calendar year basis, are, however, available. These relate to production in all slaughtering establishments and are shown in the following table for each year 1945 to 1950.

TALLOW : PRODUCTION IN SLAUGHTERING ESTABLISHMENTS, AUSTRALIA.

(cwt.)

Type.	1945.	1946.	1947.	1948.	1949.	1950.
Edible	898,831	354,934	437,232	524,690	565,774	756,572
Inedible	222,533	712,840	618,990	670,631	784,259	812,796
Total ..	1,121,364	1,067,774	1,056,222	1,195,321	1,350,033	1,569,368

2. **Consumption.**—Details of net exports and consumption in factories are shown in the following table for the five years 1945–46 to 1949–50 in comparison with 1938–39 :—

TALLOW : NET EXPORTS AND CONSUMPTION IN FACTORIES, AUSTRALIA.

(cwt.)

Particulars.	1938–39.	1945–46.	1946–47.	1947–48.	1948–49.	1949–50.
Net Exports ..	*a*560,241	146,445	73,744	87,689	173,225	407,723
Consumption by Factories	539,095	850,095	819,947	946,279	1,054,003	1,063,000

(*a*) Inedible only.

3. **Marketing.**—A modified control operates on the marketing of tallow, tallow products and derivatives. Exports are closely regulated. In respect of tallow shipped overseas the excess returns received over the fixed Australian domestic prices are paid by the exporters into a pool or equalization fund, from which a distribution is made to tallow producers generally.

A contract with the United Kingdom has been entered into annually in recent years. The 1950–51 contract provided that the United Kingdom would purchase the whole of Australia's exportable surplus of tallow, but shipments of certain grades could be made available elsewhere. Ceylon received 1,000 tons in 1950–51, and significant quantities of white mutton tallow are sold to India.

Prices in Australia are fixed, and from 19th October, 1951, the price of prime bright mixed tallow for home consumption rose from £32 10s. to £47 10s. per ton. Under the present United Kingdom contract, the price of this grade of tallow has been increased from 1st October, 1951, from £99 to £122 per ton.

CHAPTER XX.

AGRICULTURAL PRODUCTION.

Note.—Except where otherwise stated the " agricultural " years hereafter mentioned are taken as ending on 30th June.

Values of Australian oversea trade shown throughout this chapter are expressed as f.o.b. Australian currency, except where otherwise indicated.

§. 1. Introductory.

A brief reference to the attempts at cultivation by the first settlers in New South Wales and to the discovery of suitable agricultural land on the Parramatta and Hawkesbury Rivers prior to the year 1813 and west of the Blue Mountains thereafter is contained in early issues of the Official Year Book. (*See* No. 22, p. 670.)

§ 2. Progress of Agriculture.

1. **Early Records.**—In an "Account of Live Stock and Ground under Crop in New South Wales, 19th August, 1797", Governor Hunter gives the acreage of crops as follows :—Wheat, 3,361 acres ; maize, 1,527 acres ; barley, 26 acres ; potatoes, 11 acres ; and vines, 8 acres.

At a muster taken in 1808 the following was the return of crops :—Wheat, 6,874 acres ; maize, 3,389 acres ; barley, 544 acres ; oats, 92 acres ; peas and beans, 100 acres ; potatoes, 301 acres ; turnips, 13 acres ; orchards, 546 acres ; and flax and hemp, 37 acres.

By the year 1850 the area of crops had increased to 491,000 acres, of which 198,000 acres were cultivated in what is now the State of New South Wales, and 169,000 acres in Tasmania. At the end of 1850 the area under cultivation in Victoria, which was then the Port Phillip District of New South Wales, was 52,190 acres.

The gold discoveries of 1851 and subsequent years had at first a very disturbing effect on agricultural progress, the area of crops declining from 491,000 acres in 1850 to 458,000 acres in 1854. The demand for agricultural products occasioned by the large influx of population was, however, soon reflected in the increased area cultivated, for at the end of 1858 the land under crop in Australia exceeded a million acres.

2. **Progress of Cultivation.**—The following table shows the area of crops in each of the States and Territories of Australia at decennial intervals since 1860 and during each of the eleven seasons ended 1949–50, and on page 973 there is a graph showing the area of crops in Australia from 1860 onward :—

AREA OF CROPS.

(Acres.)

Season.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T.	Australia.
1860–61	246,143	387,283	3,353	359,284	24,705	152,860	..	..	1,173,628
1870–71	385,151	692,840	52,210	801,571	54,527	157,410	..	..	2,143,709
1880–81	606,277	1,548,809	113,978	2,087,237	63,902	140,788	..	..	4,560,991
1890–91	852,704	2,031,955	224,993	2,093,515	69,678	157,376	..	..	5,430,221
1900–01	2,446,767	3,114,132	457,397	2,369,680	201,338	224,352	..	..	8,813,666
1910–11	3,386,017	3,952,070	667,113	2,746,334	855,024	286,920	360	..	11,893,838
1920–21	4,465,143	4,489,503	779,497	3,231,083	1,804,987	297,383	296	1,966	15,069,858
1930–31	6,811,247	6,715,660	1,144,216	5,426,075	4,792,017	267,632	1,550	5,419	25,163,816
1939–40	6,381,531	5,002,362	1,726,091	4,541,614	4,331,299	258,038	340	8,119	22,249,394
1940–41	6,374,354	4,467,191	1,734,248	4,254,348	4,026,969	253,941	322	6,457	21,117,830
1941–42	5,929,553	4,734,613	1,671,336	3,976,232	3,852,092	280,970	(a)	5,549	20,450,345
1942–43	5,297,313	3,816,430	1,742,802	3,436,675	2,819,713	300,005	(a)	6,779	17,419,717
1943–44	4,797,385	3,462,537	1,757,396	2,760,778	2,782,414	334,933	(a)	6,769	15,902,212
1944–45	5,044,792	4,310,152	1,796,833	3,179,374	2,790,376	342,916	(a)	7,410	17,471,853
1945–46	6,087,566	5,327,122	1,822,108	3,824,128	2,944,879	411,824	(a)	8,846	20,426,473
1946–47	6,511,493	5,102,980	1,617,280	3,884,459	3,589,971	361,120	(a)	9,282	21,076,585
1947–48	7,168,068	5,023,149	1,848,539	3,851,855	4,026,201	342,311	(a)	11,409	22,271,532
1948–49	5,711,369	4,644,841	1,952,495	3,757,426	4,215,112	344,734	(a)	9,790	20,635,767
1949–50	5,670,364	4,480,202	2,056,918	3,617,252	4,398,525	368,057	(a)	9,633	20,600,951

(*a*) Not available.

The progress of agriculture was practically uninterrupted from 1860 to 1915–16, when, as the result of a special effort to raise wheat during the 1914–18 War, 18,528,234 acres were cultivated in Australia. Four years later the area of crops declined to 13,296,407 acres owing to the accumulation of wheat stocks consequent upon the difficulty of securing freight space during the war years. After the termination of hostilities the area again began to expand and rose steadily to a new maximum of 25,163,816 acres in 1930–31. Thereafter the slump in wheat prices seriously depressed the agricultural industry and the area of crops receded to just under 20 million acres in 1935–36. Subsequently the area increased and reached a maximum of 23½ million acres in 1938–39. Thereafter it declined to less than 16 million acres in 1943–44, rising in each succeeding year up to and including 1947–48, when 22.3 million acres were under crop. A fall to 20.6 million acres was recorded in 1948–49, and this level was maintained in 1949–50. As the area under wheat in Australia constitutes a large proportion of the total areas cropped (58 per cent. during the ten years ended 1949–50), fluctuations in the latter follow broadly the same pattern as changes in wheat areas.

3. **Area under Sown Pastures.**—In all the States there are considerable areas of grasses mainly sown on land from which scrub has been cleared or on land which it is desired to rest from cultivation. These areas, which are not included in "area of crops", have expanded from 5¼ million acres in 1929–30 to 18.2 million acres in 1949–50.

4. **Australian Agricultural Council.**—Arising out of a conference of Commonwealth and State Ministers on agricultural and marketing matters held at Canberra in December, 1934, a permanent organization known as the Australian Agricultural Council was formed. The Council consists of the Commonwealth Minister for Commerce and Agriculture and the State Ministers of Agriculture, with power to co-opt the services of other Commonwealth and State Ministers as required. The principal functions of the Council are:—(i) the promotion of the welfare and development of agricultural industries generally; (ii) exchange of information on agricultural production and marketing; (iii) the improvement of the quality of agricultural products and the maintenance of high grade standards; (iv) to ensure, as far as possible, balance between production and available markets; and (v) organized marketing, etc.

In addition, a permanent technical committee known as the Standing Committee on Agriculture was formed to act in an advisory capacity to the Council. Its functions, in addition to advising the Agricultural Council on the above-mentioned matters, include the following:—(i) to secure co-operation and co-ordination in agricultural research throughout Australia; (ii) to advise the Commonwealth and State Governments, either directly or through the Council, on matters pertaining to the initiation and development of research on agricultural problems; and (iii) to secure co-operation between the Commonwealth and States and between the States in respect of quarantine measures relating to pests and diseases of plants and animals, and to advise the Commonwealth and State Governments. The personnel of this Committee consists of the permanent heads of the State Departments of Agriculture, members of the Executive Committee of the Commonwealth Scientific and Industrial Research Organization, the Commonwealth Director-General of Health, the Secretary, Department of Commerce and Agriculture, the Director-General of Agriculture and a representative of the Commonwealth Treasury. The Council and the Standing Committee meet normally two or three times a year according to the nature and urgency of the problems to be discussed.

§ 3. Distribution, Production and Value of Crops.

1. **Distribution of Crops.**—The following table shows the areas in the several States and Territories of each of the principal crops for the season 1949–50. Similar details for the season 1948–49 appear in Part II. of *Production Bulletin* No. 43.

AREA OF PRINCIPAL CROPS, 1949–50.

(Acres.)

Crop.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	A.C.T.	Aust.(*a*)
Cereals for Grain—								
Barley—								
2 Row ..	9,463	211,852	16,992	651,214	33,846	3,990	..	927,357
6 Row ..	3,352	24,271	8,082	42,544	34,119	356	..	112,724
Maize	72,872	5,136	115,550	..	20	10	3	193,591
Oats	374,729	483,190	20,456	261,416	584,603	22,812	346	1,747,552
Rice	37,540	..	..	..	..	..	..	37,540
Rye	1,155	16,690	309	39,537	5,223	246	..	63,160
Wheat ..	4,011,744	2,828,273	600,013	1,896,324	2,894,020	5,473	4,460	12,240,307
Hay	339,091	606,525	55,108	294,590	216,320	91,335	2,271	1,605,240
Green Fodder ..	584,541	(*b*) 44,928	581,811	277,265	550,690	136,412	2,249	2,177,896
Other Stock Fodder	4,680	18,672	16,359	17,251	10,142	24,608	..	91,712
Grass and other Seeds ..	9,242	12,028	1,809	27,896	17,049	2,097	..	70,121
Industrial Crops—								
Cotton ..	..	..	2,688	..	..	..	..	2,688
Broom Millet ..	2,815	94	191	..	..	..	..	3,100
Flax for Fibre ..	..	5,261	..	1,753	2,441	..	..	9,455
Hops ..	..	278	..	..	(*c*)	1,315	..	(*d*) 1,593
Sugar-cane—								
Productive ..	8,517	..	272,812	..	..	..	..	281,329
Unproductive	8,378	..	108,517	..	..	..	..	116,895
Tobacco ..	327	919	2,677	..	661	..	..	4,584
Vegetables—								
Legumes—								
Beans, Navy	(*e*)	..	2,147	..	..	30	..	(*d*) 2,177
Peas, Blue ..	(*e*)	151	..	..	..	7,662	..	(*d*) 7,813
Onions ..	225	4,093	2,371	435	371	28	3	7,526
Potatoes, ordinary ..	23,369	50,651	11,624	7,245	6,895	34,110	108	134,002
Other vegetables for human consumption ..	54,050	35,210	32,304	8,560	8,432	6,480	80	145,116
Vines—								
Bearing ..	15,067	42,552	2,651	54,378	8,269	..	10	122,927
Not bearing ..	1,864	2,834	484	5,875	1,407	..	..	12,464
Orchards and other Fruit Gardens ..	94,725	71,046	35,986	26,858	22,744	28,471	98	279,928
All other Crops ..	12,618	15,548	165,977	4,111	1,273	2,622	5	202,154
Total Area ..	5,670,364	4,480,202	2,056,918	3,617,252	4,398,525	368,057	9,633	20,600,951

(*a*) Excludes Northern Territory, details for which are not available. (*b*) Excludes 56,834 acres of pasture land sown to lucerne and 191,493 acres sown to oats, for grazing. (*c*) Not available for publication. Included with " All other Crops ". (*d*) Incomplete. (*e*) Not available. Included with " All other Crops ".

2. **Relative Areas of Crops in States and Territories.**—The proportion of each of the crops cultivated to the extent of over 100,000 acres in the various States and Territories on the total area of crops for the season 1949–50 is shown in the next table. Similar details for the season 1948–49 appear in Part II. of *Production Bulletin* No. 43. In four of the States, namely, New South Wales, Victoria, South Australia and Western Australia, wheat-growing for grain is by far the most extensive crop. In Queensland the most extensive crops are wheat, green fodder and sugar-cane, and in Tasmania, green fodder, hay and potatoes.

As pointed out previously, wheat is the main crop in Australia, the area thereof, for grain only, representing approximately 60 per cent. of the total area of crops in 1949–50.

RELATIVE AREAS UNDER CROP, 1949–50.

(Per Cent.)

Crop.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	A.C.T.	Aust.(*a*)
Wheat (Grain) ..	70.74	63.13	29.17	52.42	65.80	1.49	46.30	59.42
Green Fodder(*b*) ..	10.27	1.00	28.17	7.67	12.52	37.06	23.35	10.55
Oats (Grain) ..	6.61	10.79	0.99	7.23	13.29	6.20	3.59	8.48
Hay	5.98	13.54	2.68	8.14	4.92	24.81	23.57	7.79
Barley (Grain) ..	0.23	5.27	1.22	19.18	1.54	1.18	..	5.05
Sugar-cane ..	0.31	..	18.66	..	..	..	..	1.95
Orchards and Fruit Gardens ..	1.67	1.59	1.75	0.74	0.52	7.74	1.02	1.36
Maize (Grain) ..	1.29	0.11	5.62	..	...	...	0.03	0.94
Vineyards ..	0.30	1.01	0.15	1.67	0.22	..	0.10	0.66
Potatoes, ordinary	0.41	1.13	0.57	0.20	0.15	9.27	1.12	0.65
All other ..	2.19	2.43	11.02	2.75	1.04	12.25	0.92	3.15
Total ..	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

(*a*) Excludes Northern Territory, details for which are not available. (*b*) Includes green forage except in Victoria.

3. **Area of Principal Crops in Australia.**—The area of the principal crops during each of the five seasons ended 1949–50, compared with the average for the decennium ended 1938–39 is shown hereunder :—

AREA OF PRINCIPAL CROPS : AUSTRALIA.

('000 Acres.)

Crop.	Average, ten years ended 1938–39.	1945–46.	1946–47.	1947–48.	1948–49.	1949–50.
Cereals for Grain—						
Barley, 2 Row	428	593	663	745	899	927
Maize	295	236	260	223	182	194
Oats	1,393	1,949	1,728	2,105	1,770	1,748
Rice	22	28	32	26	33	38
Wheat	14,345	11,425	13,180	13,880	12,583	12,240
Hay	2,994	2,757	2,006	1,970	1,580	1,605
Green Fodder	1,272	1,806	1,602	1,705	2,011	2,178
Vegetables—						
Beans and Peas	49	35	19	11	10	10
Onions	8	12	9	11	10	8
Potatoes, ordinary.. ..	130	176	145	146	120	134
Other vegetables for human consumption	(*a*) 34	231	186	156	166	145
Industrial Crops—						
Cotton	43	8	8	8	6	3
Hops	1	1	1	2	2	2
Sugar-beet	3	..	1	1	..	..
Sugar-cane	332	337	324	345	384	398
Tobacco	12	4	4	4	4	5
Vineyards	118	129	130	132	135	135
Orchards	276	270	280	290	287	280
All other Crops	203	429	499	512	454	551
Total	21,958	20,426	21,077	22,272	20,636	20,601

(*a*) Market Gardens.

4. **Weights and Measures.**—The production of agricultural commodities in Australia is recorded in terms of either capacity or weight. When measured in terms of capacity the unit is the bushel of 2,218.192 cubic inches or gallon of 277.274 cubic inches. When measured in terms of weight, the unit adopted is either the long ton of 2,240 lb. (except in the case of flour, bran and pollard, when the short ton of 2,000 lb. is used), the hundredweight (cwt.) of 112 lb. or pound (lb.).

The production of cereals and fruit is recorded in bushels, the production of wine in gallons, while hay, vegetables, grapes and industrial crops are measured by weight, generally in terms of long tons or cwt.

In the following table the weights adopted per bushel are shown for the more important cereals, fruits, etc. Several types of cases are used for fruits, but in determining the average weights shown below, that with a capacity of 2,223 cubic inches was adopted. The packed weight of a bushel of fruit also is subject to considerable variation according to the kind and variety of fruit.

Data compiled by the State Departments of Agriculture made available to this Bureau were used in determining these average weights.

APPROXIMATE BUSHEL EQUIVALENTS.

Commodity.	Approximate Bushel Equivalent in lb.	Commodity.	Approximate Bushel Equivalent in lb.
Cereals—		Fruit—*continued.*	
Barley	50	Bananas	56
Canary Seed	56	Cherries	48
Maize	56	Citrus—	
Millets	60	Oranges	48
Oats	40	Mandarins	48
Panicum	60	Lemons	48
Rice (Paddy)	42	Grape Fruit	42
Rye	60	Custard Apples	35
Sorghum	60	Figs	44
Wheat	60	Mangoes	40
Legumes—		Nectarines	50
Beans	60	Passion Fruit	34
Peas	60	Peaches	45
Other Crops—Flax Seed	56	Pears	45
Fruit—		Persimmons	44
Apples	42	Plums and Prunes	58
Apricots	48	Quinces	42

5. **Production of Principal Crops in Australia.**—The following table shows the production of the principal crops for the five years ended 1949–50, and for the decennium ended 1938–39:—

PRODUCTION OF PRINCIPAL CROPS: AUSTRALIA.

Crop.	Unit of Quantity.	Average, ten years ended 1938–39.	1945–46.	1946–47.	1947–48.	1948–49.	1949–50.
Cereals for Grain—							
Barley, 2 Row	'000 bus.	7,480	9,581	10,558	18,937	15,929	17,569
Maize	,, ,,	7,228	5,729	5,808	6,168	5,188	5,996
Oats	,, ,,	16,437	25,774	15,566	40,697	23,601	27,391
Rice	,, ,,	2,005	2,735	2,978	2,676	2,739	3,783
Wheat	,, ,,	169,398	142,410	117,262	220,116	190,703	218,221
Hay	,, tons	3,490	3,493	2,357	3,008	2,292	2,430
Vegetables—							
Beans and Peas (Dry)	,, ,,	20	10	8	5	5	5
Onions	,, ,,	43	67	45	86	57	48
Potatoes, ordinary	,, ,,	351	646	544	498	460	471
Industrial Crops—							
Cotton, Unginned	,, lb.	15,667	1,819	3,022	2,064	1,821	719
Hops	,, ,,	2,127	2,222	2,495	(*a*) 2,738	(*a*) 1,912	(*a*) 2,575
Sugar (from Beet)	,, tons	5	..	1.0	0.6	..	..
Sugar (from Cane)	,, ,,	658	666	552	605	943	937
Tobacco (Dried leaf)	,, lb.	5,113	2,505	3,994	2,484	3,416	4,138
Vineyards—							
Grapes	,, tons	381	447	435	510	436	432
Wine made	,, gals.	16,330	25,858	33,190	34,159	34,183	33.966
Raisins and Currants	,, tons	70	74	65	85	65	68

(*a*) Incomplete, excludes Western Australia.

6. **Average Yield per Acre of Principal Crops in Australia.**—The following table shows the yield per acre for Australia of the principal crops for the five years ended 1949–50 and the decennium ended 1938–39.

AVERAGE YIELD PER ACRE OF PRINCIPAL CROPS: AUSTRALIA.

Crop.	Unit of Quantity.	Average, ten years ended 1938–39.	1945–46.	1946–47.	1947–48.	1948–49.	1949–50.
Cereals for Grain—							
Barley, 2 Row	Bushel	17.49	16.15	15.92	25.43	17.72	18.95
Maize	,,	24.53	24.30	22.36	27.69	28.51	30.97
Oats	,,	11.80	13.22	9.01	19.33	13.34	15.67
Rice	,,	93.00	96.40	93.08	102.12	83.79	100.78
Wheat	,,	11.81	12.46	8.90	15.86	15.15	17.83
Hay	Ton	1.17	1.27	1.18	1.53	1.45	1.51
Vegetables—							
Onions	,,	5.54	5.38	4.77	8.00	5.81	6.34
Potatoes, ordinary ..	,,	2.71	3.67	3.76	3.42	3.84	3.52
Industrial Crops—							
Cotton, Unginned (*a*) ..	lb.	366	236	382	244	293	267
Hops (*a*)	,,	2,003	1,754	1,702	1,831	1,250	1,616
Sugar (from Beet) ..	Ton	1.40	..	1.35	1.06	..	..
Sugar (from Cane) (*a*) ..	,,	2.76	2.83	2.43	2.72	3.54	3.33
Tobacco (Dried leaf) ..	lb.	463	631	889	646	918	903
Vineyards—							
Grapes (*a*)	Ton	3.45	3.62	3.52	4.12	3.53	3.51
Wine (*a*)	Gallon	340	471	570	608	580	584
Raisins and Currants (*a*) ..	Ton	1.28	1.23	1.14	1.43	1.15	1.22

(*a*) Per acre of productive crops.

7. **Gross Value of Agricultural Production in Australia.**—The following table shows the gross value of recorded agricultural production at the principal markets in Australia for the decennium ended 1938–39 and the five years ended 1949–50 :—

GROSS VALUE OF AGRICULTURAL PRODUCTION: AUSTRALIA.
(£'000.)

Crop.	Average, ten years ended 1938–39.	1945–46.	1946–47.	1947–48.	1948–49.	1949–50.
Cereals for Grain—						
Barley	1,214	(*a*) 3,406	(*a*) 4,847	16,299	7,394	10,709
Maize	1,537	2,054	2,119	2,340	2,640	2,806
Oats	1,937	(*a*) 4,573	(*a*) 3,432	12,823	5,458	8,254
Rice	392	672	892	950	1,032	1,653
Wheat(*a*)	30,125	51,421	52,124	156,174	107,224	(*b*)128,798
Hay	11,413	18,445	11,586	17,096	14,561	17,770
Green Fodder	2,775	3,854	3,627	(*c*) 3,518	(*c*) 3,635	(*c*) 3,894
Vegetables—						
Beans and Peas (Dry) ..	230	493	495	608	898	1,046
Onions	245	961	744	1,245	863	1,058
Potatoes, ordinary ..	2,314	7,989	6,734	6,543	8,125	9,142
Other vegetables for human consumption	(*d*) 1,973	15,124	12,838	12,025	12,599	14,590
Industrial Crops—						
Cotton, Unginned ..	(*a*) 298	(*a*) 42	66	46	48	26
Hops	157	226	278	(*c*) 318	(*c*) 284	(*c*) 465
Sugar-beet	73	3	27	19	..	..
Sugar-cane	7,895	10,400	9,035	11,422	17,996	18,581
Tobacco (Dried leaf) ..	474	328	538	405	695	1,146
Vineyards	3,907	6,505	6,727	8,398	7,475	8,886
Orchards	(*a*) 7,953	(*a*) 18,750	17,933	22,066	20,160	26,273
All other Crops	2,578	3,851	4,294	5,165	6,608	6,994
Total, Gross Value ..	77,490	149,097	138,336	277,460	217,695	262,091

(*a*) Includes Governmental assistance. (*b*) Subject to revision. (*c*) Incomplete. (*d*) Market Gardens.

8. **Value of Production.**—(i) *Gross and Net Values*, 1948–49 *and* 1949–50. Uniform methods for arriving at the gross and net values of production in the various States were determined at a Conference of Statisticians held in March, 1935. The returns for the year 1933–34 and subsequent years have been valued on the new basis, and a revaluation

was made for the years back to 1928–29. A more detailed reference to the value of production of agriculture and other industries in Australia as well as a brief explanation of the terms used will be found in Chapter XXIX.—Miscellaneous.

In computing the net value of production no deduction has been made for the cost of maintenance of farm buildings and fences, nor for the depreciation of farm plant; consequently the figure stated is inflated to that extent.

GROSS, FARM AND NET VALUES OF AGRICULTURAL PRODUCTION, 1948–49 AND 1949–50.

(£'000.)

State.	Gross Production valued at Principal Markets.	Marketing Costs.	Gross Production valued at Farm.	Farm Costs.		Net Value of Production. (a)	Depreciation (estimated).
				Seed used, and Fodder for Farm Stock.	Value of other Materials used in process of production.		
			1948–49.				
New South Wales ..	62,222	8,335	53,887	6,338	(c) 1,344	46,205	(d)
Victoria	50,432	5,268	45,164	6,965	2,160	36,039	950
Queensland ..	36,695	3,820	32,875	2,790	2,550	27,535	1,690
South Australia ..	31,793	3,253	28,540	3,074	1,533	23,933	595
Western Australia ..	29,115	2,585	26,530	1,936	2,853	21,741	(d)
Tasmania ..	7,311	1,763	5,548	1,333	(c) 234	3,981	126
Total ..	217,568	25,024	192,544	22,436	10,674	159,434	(e) 3,361
			1949–50.(b)				
New South Wales ..	78,927	10,436	68,491	5,028	(c) 1,373	62,090	(d)
Victoria	64,980	6,645	58,335	7,139	2,489	48,707	950
Queensland ..	39,231	4,080	35,151	2,980	2,730	29,441	1,810
South Australia ..	38,096	3,552	34,544	2,495	1,601	30,448	594
Western Australia ..	31,504	3,018	28,486	1,676	3,265	23,545	(d)
Tasmania ..	9,201	1,863	7,338	1,667	(c) 337	5,334	130
Total ..	261,939	29,594	232,345	20,985	11,795	199,565	(e) 3,484

(a) No deduction has been made for depreciation and maintenance. (b) Subject to revision. (c) No allowance made for costs of power, power kerosene, petrol and other oils. (d) Not available. (e) Incomplete.

(ii) *Net Values*, 1929–30 *to* 1949–50. In the following table the net value of agricultural production and the net value per head of population are shown by States for the years 1945–46 to 1949–50 in comparison with the averages for the decennial periods ended 1938–39 and 1949–50:—

NET VALUE OF AGRICULTURAL PRODUCTION.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Total.
			NET VALUE.(a)(£'000.)				
Average ten years 1929–30 to 1938–39	13,304	10,508	10,189	6,540	4,903	1,824	47,268
1945–46	39,199	20,327	18,731	13,781	9,472	4,344	105,854
1946–47	20,351	29,266	15,373	18,871	11,842	3,339	99,042
1947–48	79,308	48,173	22,730	39,938	26,949	3,937	221,035
1948–49	46,205	36,039	27,535	23,933	21,741	3,981	159,434
1949–50 (b) ..	62,090	48,707	29,441	30,448	23,545	5,334	199,565
Average ten years 1940–41 to 1949–50	34,238	25,511	19,139	17,189	12,217	4,005	112,299
			NET VALUE PER HEAD OF POPULATION. (£ s. d.)				
Average ten years 1929–30 to 1938–39	5 1 2	5 14 11	10 13 0	11 3 10	11 0 9	7 18 5	7 1 4
1945–46	13 7 4	10 1 8	17 5 7	21 16 9	20 1 9	17 7 1	14 4 10
1946–47	6 17 4	14 6 11	14 0 3	29 9 3	23 16 4	13 2 3	13 3 4
1947–48	26 7 8	23 5 8	20 8 6	61 4 7	52 19 2	15 0 10	28 18 7
1948–49	15 1 7	17 1 1	24 5 4	35 19 8	41 12 8	14 16 9	20 8 10
1949–50(b) ..	19 11 6	22 8 11	25 6 3	44 6 8	43 2 10	19 4 7	24 15 10
Average ten years 1940–41 to 1949–50	11 9 9	12 8 3	17 10 8	26 12 6	24 2 11	15 16 1	14 16 9

(a) No deduction has been made for depreciation and maintenance. (b) Subject to revision.

§ 4. Wheat.

1. **Royal Commission on the Wheat Industry.**—A Royal Commission was appointed in January, 1934, to inquire into and report upon the economic condition of the industries of growing, handling and marketing wheat, and the manufacturing, distributing and selling of flour and bread. A searching inquiry was made by the Commission and the results of its investigations were submitted in a series of five reports. The first and second reports covered the wheat-growing industry, the third that of baking, the fourth the flour-milling industry, while the fifth, completed in February, 1936, dealt with the history of the Commission's investigations and traversed the principal recommendations submitted.

Reference to the financial assistance to the wheat industry will be found in § 20. Bounties, hereafter.

2. **Wheat Costs of Production Committee.**—A Wheat Costs of Production Committee was appointed by the Commonwealth Government in February, 1947, to enquire into and report upon :—(i) the reasonable costs of production of wheat per bushel in Australia's main wheat-growing districts, and (ii) whether basic items of costs could be established as an index to periodical variations in costs of the production of wheat. The Committee in its report to the Commonwealth Government in March, 1948, found that the cost of growing wheat in the Commonwealth was 6s. per bushel at sidings and advised that basic items of cost could be established as an index to periodical variations in wheat production costs.

3. **Licensing of Areas Sown to Wheat, and Acreages Sown.**—Details of the operations of the Wheat Stabilization Board in licensing wheat growing during the seasons 1941–42 to 1948–49 will be found in Official Year Book No. 38, pp. 940, 941. The Board ceased to function on 31st December, 1948.

4. **Legislation relating to Wheat Industry.**—(i) *Financial Assistance to Wheat Growers.* Details of financial assistance rendered by the Commonwealth Government to wheat growers between the years 1931–32 and 1944–45 were given on page 1296 of Official Year Book No. 37.

(ii) *Stabilized Marketing.* A detailed survey of legislation relating to stabilization of the wheat industry, including controls exercised during the 1914–18 and 1939–45 Wars and legislation establishing the permanent Wheat Stabilization Plan in 1948, were given in the Appendix to Official Year Book No. 37 (pp. 1295–99).

(iii) *Wheat Stabilization Plan.* Briefly, the principal provisions of the Wheat Stabilization Plan, which is operated by the Australian Wheat Board conjointly with State Wheat Boards and similar authorities nominated by State Governments, are as follows :—

(*a*) The Commonwealth Government has guaranteed a price for wheat grown and delivered to the Australian Wheat Board or other approved organizations for each season 1947–48 to 1952–53.

(*b*) The price guaranteed was 6s. 3d. per bushel f.o.r. ports, bulk basis (this being related to costs of producing wheat in the 1947–48 season), subject to variation, as agreed upon by the Commonwealth Minister for Commerce and Agriculture in consultation with the appropriate State Ministers, in accordance with variations in the cost of producing wheat in subsequent seasons. Following reviews of wheat production costs, the guaranteed price was increased to 6s. 8d. per bushel f.o.r. ports, bulk basis for the 1948–49 season and to 7s. 1d. per bushel for the 1949–50 season. For the 1947–48 and 1948–49 seasons the price of wheat fixed for home consumption was the guaranteed price of 6s. 3d. and 6s. 8d. per bushel respectively, but for the 1949–50 season it remained unchanged from the previous year at 6s. 8d. per bushel. The additional 5d. per bushel payable to growers for wheat for home consumption in 1949–50 was met by subsidy provided by the Commonwealth Government. For the 1950–51 season the subsidy was withdrawn and the guaranteed and home consumption prices fixed at 7s. 10d. per bushel (f.o.r. ports, bulk basis).

(*c*) The guaranteed price applies in respect of the export from any one season's crop up to a maximum of 100,000,000 bushels.

(*d*) A Wheat Prices Stabilization Fund has been established by means of a tax on wheat exported. The tax applies when the export price is greater than the guaranteed price, the rate of tax being 50 per cent. of the difference between the two but not exceeding 2s. 2d. per bushel.

(*e*) The Stabilization Fund will be drawn upon as required to meet the guaranteed price when this exceeds the export price. If amounts held in the Fund are at any time insufficient for this purpose, the deficiency will be provided by the Commonwealth Government from Consolidated Revenue.

(iv) *The Australian Wheat Board and the Stabilization Fund.* The Australian Wheat Board, as reconstituted under the Commonwealth Wheat Industry Stabilization Act 1948, commenced to perform its functions under the Act on 18th December, 1948.

The provisions of the Commonwealth Wheat Stabilization Plan relating to the levy of a tax on wheat exported and the establishment of a Stabilization Fund were implemented by the Commonwealth Government under legislation passed in 1946 in respect of the 1945–46, 1946–47 and 1947–48 harvests. Contributions to the Stabilization Fund from these harvests amounted to about £7,000,000, £4,000,000 and £16,400,000 respectively, these amounts having since been refunded to growers. Contributions to the Fund from the 1948–49 and 1949–50 (collected under the 1948 legislation) harvests were approximately £12,500,000 and £15,000,000 respectively. The 1948–49 harvest contributions were also refunded to growers early in 1952.

5. **War-time and Post-war Marketing of Wheat.**—(i) *General.* On page 908 of Official Year Book No. 37 an outline was given of the circumstances leading up to the establishment by the Commonwealth Government on 21st September, 1939 of the Australian Wheat Board under the National Security (Wheat Acquisition) Regulations.

(ii) *Australian Wheat Board.* Under the Wheat Acquisition Regulations the Board was empowered, subject to directions of the Minister for Commerce and Agriculture, to purchase, sell or dispose of wheat or wheat products, manage and control all matters connected with the handling, storage, protection, shipment, etc., of wheat acquired, and such other matters necessary to give effect to the regulations under which it was created. The Australian Wheat Board was reconstituted and vested with similar powers under the Commonwealth Wheat Stabilization Act 1948 for the purpose of administering the post-war Wheat Stabilization Plan (*see* paragraph 4 (iii) above). The reconstructed Board commenced operations on 18th December, 1948.

(iii) *Wheat Acquired and Disposed of.* (*a*) *Wheat Acquired.* Particulars of wheat acquired by the Australian Wheat Board up to 30th November, 1950 are shown in the following table :—

AUSTRALIAN WHEAT BOARD : WHEAT ACQUIRED TO 30th NOVEMBER, 1950.
('000 Bushels.)

Pool.	Harvest.	New South Wales.	Victoria.	Queensland.	South Australia.	Western Australia.	Tasmania.	Australia.
1	1938–39(a)	6,226	2,805	..	5,884	2,925	..	17,840
2 and 3 ..	1939–40	66,688	46,960	6,255	38,130	37,370	41	195,444
4	1940–41	16,919	9,985	5,287	13,818	17,575	75	63,659
5	1941–42	41,235	48,135	2,680	27,738	34,078	78	153,944
6	1942–43	44,709	40,213	4,403	34,660	17,983	22	141,990
7	1943–44	40,880	17,227	4,599	18,141	13,853	57	94,757
8	1944–45	12,167	941	5,837	6,758	13,079	39	38,821
9	1945–46	54,889	25,621	7,492	18,162	17,742	23	123,929
10	1946–47	8,635	44,482	444	24,818	20,521	68	98,968
11 and 11A ..	1947–48	89,416	44,402	10,017	29,572	31,128	59	204,594
12	1948–49	58,358	46,661	13,544	23,515	32,828	103	175,009
13	1949–50	75,447	55,236	11,195	26,374	34,577	88	202,917
Total to 30th November, 1950..		515,569	382,668	71,753	267,570	273,659	653	1,511,872

(*a*) Balance only.

(*b*) *Wheat Disposal.* Details relating to the disposal of this wheat are shown in the following table :—

AUSTRALIAN WHEAT BOARD : DISPOSAL OF WHEAT TO 30th NOVEMBER, 1950.

('000 Bushels.)

Particulars.	To 30th November, 1945.	1946.	1947.	1948.	1949.	1950.	Total to 30th November, 1950.
Sold for export as wheat ..	197,055	19,820	13,314	104,253	67,225	80,931	482,598
Sold for export as flour ..	149,557	37,487	34,927	45,553	41,938	30,947	340,409
Sold for local consumption as flour	203,004	32,204	30,833	33,606	34,493	35,484	369,624
Sold for all other purposes ..	151,723	26,283	25,071	22,702	24,109	25,499	275,387

(iv) *Finance.* The Wheat Acquisition Regulations empowered the Minister to arrange with the Commonwealth Bank for advances to the Board, the advances being guaranteed by the Commonwealth Government. The Wheat Industry Stabilization Act 1948 included similar provisions for advances to the reconstituted Board established under that Act.

AUSTRALIAN WHEAT BOARD : FINANCIAL OPERATIONS TO 30th NOVEMBER, 1950.

(£.)

Particulars.	No. 8 Pool. (*a*)	No. 9 Pool. (*a*)	No. 10 Pool. (*a*)	Nos. 11 and 11A Pools. (*b*)	No. 12 Pool. (*b*)	No. 13 Pool. (*b*)
Paid to growers	8,843,681	*c*44,274,573	*d*43,683,708	126,316,867	83,493,879	62,058,452
Rail freight	758,564	2,460,831	1,795,753	5,118,191	4,560,000	6,130,000
Expenses	1,103,715	1,810,734	1,769,592	3,829,313	3,162,630	4,070,000
Total Payments ..	10,705,960	*c*48,546,138	*d*47,249,053	135,264,371	91,216,509	72,258,452
Value of sales delivered ..	8,842,989	47,785,890	45,309,645	(*e*) 152,729,793	(*f*) 104,365,597	(*g*) 105,673,044
Value of flour tax	1,862,971	760,248	1,939,408	..	..	..

(*a*) Complete. (*b*) Incomplete. (*c*) Includes £6,900,000 collected under Wheat Export Charges Act 1946 and subsequently distributed to growers, plus interest, £219,633. (*d*) Includes £4,329,780 collected under Wheat Export Charges Act 1946 and subsequently distributed to growers, plus interest, £99,224. (*e*) Includes £16,420,334 paid into Wheat Prices Stabilization Fund under Wheat Export Charges Act 1948, since refunded and distributed to growers, plus interest £579,660. (*f*) Includes £12,480,161 paid into Wheat Prices Stabilization Fund under Wheat Export Charges Act 1948, plus interest, £464,027. (*g*) Includes £8,681,376 paid into Wheat Prices Stabilization Fund under Wheat Export Charges Act, 1948.

NOTE.—Details of earlier pools will be found in Official Year Books No. 36, p. 798, No. 37, p. 909 and No. 38, p. 943.

(v) *Advances to Growers.* Full details of advances made to wheat growers in respect of No. 7 and preceding pools were given in Official Year Book No. 37 (pp. 910, 911) and in earlier issues of the Year Book.

The table below shows particulars of advances made in pools Nos. 11, 11A, 12, 13 and 14 to 31st August, 1951.

WHEAT POOLS Nos. 11 to 14 : ADVANCES MADE TO GROWERS TO 31st AUGUST, 1951.

Particulars.	Amount Paid (Trucks Terminal Port Basis).									
	No. 11 Pool.(a)		No. 11A Pool.(a)(b)		No. 12 Pool.(c)		No. 13 Pool.(c)		No. 14 Pool.(c)	
	Per Bushel.	Total.	Per Bushel.	Total.	Per Bushel.	Total.	Per Bushel.	Total.	Per Bushel.	Total.
	s. d.	£'000.	s. d.	£'000.	s. d.	£'000.	s. d.	£'000.	s. d.	£'000.
Advances made to Growers—										
1st Payment—										
Bulk ..	4 6	46,608	4 6	1,672	5 0	45,339	6 0	62,833	6 7	57,066
Bagged ..	5 0		5 0		5 6		6 6		7 3	
2nd Payment—										
Bulk ..	2 0	19,789	2 0	670	1 6	13,126	2 0	20,291	1 0	8,454
Bagged ..	2 0		2 0		1 6		2 0		1 0	
3rd Payment—										
Bulk ..	2 0	19,789	2 0	670	1 0	8,750	1 6	15,218		
Bagged ..	2 0		2 0		1 0		1 6			
4th Payment—										
Bulk ..	2 0	19,789	1 6	503	2 0	17,501	1 6	15,212		
Bagged ..	2 0		1 6		2 0		1 6			
5th Payment—										
Bulk ..	1 6	14,842	1 0	335	0 3.3	3,093	0 5	5,529		
Bagged ..	1 6		1 0		0 5.9		0 9			
6th Payment—										
Bulk ..	0 7	6,292	0 11½	362						
Bagged ..	0 8½		1 1							
7th Payment—										
Bulk ..	1 8.715	17,180	1 8.277	574						
Bagged ..	1 9		1 8.562							
Total—										
Bulk ..	14 3.715	144,289	13 7.777	4,786	9 9.3	87,809	11 5	119,083	7 7	65,520
Bagged ..	14 11½		14 3.562		10 5.9		12 3		8 3	

(a) Rail freight was deducted from 2nd payment. (b) This Pool refers to low grade wheat (under 54 lb. per bushel) which was segregated from other wheat received in No. 11 Pool. (c) Rail freight was deducted from 1st payment.

6. **International Wheat Agreement.**—Following a series of unsuccessful attempts extending over a period of years to secure an arrangement for the stabilization of international trade in wheat, an International Wheat Agreement was signed in Washington, D.C., United States of America, on 6th March, 1948, by 33 importing nations and the three exporting countries of Canada, United States of America and Australia. However, principally owing to the failure of the Government of the United States of America to ratify the Agreement within the prescribed time, it was allowed to lapse.

A further International Wheat Agreement was signed in Washington in March and April, 1949 by the representatives of 41 nations, comprising all the important wheat importing countries excluding Germany and Japan and the wheat exporting countries of Canada, United States of America, Australia, France and Uruguay. The 1949 Agreement is similar to that proposed in 1948, its stated objectives being " to assure supplies of wheat to importing countries and markets for wheat to exporting countries at equitable and stable prices ".

The new Agreement covers a period of four years from 1st August, 1949 to 31st July, 1953, with provision for extension beyond that date, if desired. Under its terms, the exporting countries participating in the Agreement must sell specified minimum quantities of wheat each year if required by importing countries to do so at the maximum price quoted in the Agreement, while the importing countries are obliged to buy specified quantities if required by the exporter at the minimum price quoted for the relevant year. Expressed in Australian currency equivalent, the maximum price in respect of transactions under the Agreement is approximately 16s. 1d. per bushel for each year, while minimum prices range from 13s. 5d. per bushel in 1949–50 to 10s. 9d. per bushel in 1952–53.

The export and import quotas originally specified in the Agreement, totalling 456.3 million bushels, have subsequently been varied because of—(i) the withdrawal of certain countries from participation in the Agreement (Uruguay as an exporter, and China, principally, of the importing countries), and (ii) the admission of new members to the Agreement. The principal new participants were Germany (from late 1949) and Japan (from 1951–52), for which the United States of America had originally accepted responsibility for wheat supplied outside the provisions of the Agreement.

Details of the adjusted quotas (which totalled 562.5 million bushels for 1950–51) for the principal exporting and importing countries participating in the Agreement are shown in the following table. The table also shows transactions recorded under the Agreement for the year August, 1950 to July, 1951.

INTERNATIONAL WHEAT AGREEMENT: GUARANTEED ANNUAL SALES AND PURCHASES AND TRANSACTIONS RECORDED FOR 1950–51.

('000,000 Bushels.)

Exporting Country.	Guaranteed Annual Sales.(*a*)	Sales Recorded 1950–51.	Importing Country.	Guaranteed Annual Purchases.(*a*)	Purchases Recorded 1950–51.
United States of America ..	248.1	249.1	United Kingdom ..	177.1	177.1
Canada	221.6	191.0	Germany	66.1	59.4
Australia	88.7	87.3	Italy	40.4	30.0
France	4.1	3.9	India	38.3	55.2
			Netherlands	27.6	23.0
			Belgium	20.2	20.3
			Union of South Africa ..	11.0	8.3
			Remaining Importing Countries	181.8	158.0
Total	562.5	531.3	Total	562.5	531.3

(*a*) Wheat and wheat flour as wheat.

7. **Wheat Farms.**—(i) *Number.* Particulars of the number of farms growing 20 acres and upwards of wheat for grain during each of the years 1946–47 to 1950–51, compared with the average for the five years ended 1938–39, are shown in the following table. It should be noted that a farm worked on the share system or as a partnership is included as one holding only.

NUMBER OF FARMS GROWING 20 ACRES AND UPWARDS OF WHEAT FOR GRAIN.

State.	Average 1934–35 to 1938–39.	1946–47.	1947–48.	1948–49.	1949–50.	1950–51.
New South Wales ..	15,657	15,971	16,797	15,674	15,594	14,279
Victoria	12,393	13,155	12,703	12,105	11,491	11,203
Queensland	2,403	2,006	2,921	3,804	3,744	3,862
South Australia ..	12,255	10,412	10,171	9,405	9,346	8,416
Western Australia ..	8,859	7,460	7,551	7,779	7,808	7,814
Tasmania	269	122	126	123	58	79
Total (*a*) ..	51,836	49,126	50,269	48,890	48,041	45,653

(*a*) Excludes Australian Capital Territory.

(ii) *Special Tabulations relating to Wheat Holdings.* With the co-operation of State Statisticians, a series of special tabulations relating to rural holdings was undertaken for all States for the year 1949–50. The tabulations, which covered, *inter alia*, a series of size classifications of wheat farms, have been published in detail in *Primary Industries Bulletin*, 1949–50, No. 44. A similar tabulation was made for the year 1947–48, a summary of the results being published in *Production Bulletin* No. 42, Primary Industries, and Official Year Book No. 38, page 947.

8. **Area, Production and Average Yield.**—(i) *Area.* Wheat is the principal crop raised in Australia, and its progress since 1860 has been almost continuous. Prominent features in its early development were the increase in population following the discovery of gold and the redistribution of labour after the surface gold had been won. The economic depression of 1893 interrupted its progress, but its subsequent recovery was assisted by the invention of mechanical appliances, the use of superphosphate as an aid to production, and the introduction of new and more suitable varieties for Australian conditions. The establishment of closer settlement schemes and the settling of returned soldiers and others on the land were additional factors in its expansion. The most serious interruptions in more recent years were those occasioned by the two World Wars and the economic depression of the early 'thirties.

As previously mentioned, any variation in the acreage sown to this cereal materially affects the total area of crops. The area, production and average yield per acre of wheat for grain in each State are shown below for the years 1945–46 to 1949–50 in comparison with the averages for the decennial periods ended 1938–39 and 1949–50 :—

WHEAT FOR GRAIN : AREA, PRODUCTION AND AVERAGE YIELD.

Season.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	A.C.T.	Aust.
AREA ('000 ACRES).								
Average, 1929–30 to 1938–39 ..	4,302	3,063	277	3,526	3,158	17	2	14,345
1945–46 ..	3,774	3,251	392	2,165	1,836	5	2	11,425
1946–47 ..	4,475	3,501	248	2,519	2,426	8	3	13.180
1947–48 ..	5,043	3,227	462	2,375	2,760	8	5	13,880
1948–49 ..	4,038	2,996	608	2,063	2,867	7	4	12,583
1949–50 ..	4,012	2,828	600	1,896	2,894	6	4	12,240
Average, 1940–41 to 1949–50 ..	3,834	2,731	387	2,107	2,290	6	3	11,358
PRODUCTION ('000 BUSHELS).(*a*)								
Average, 1929–30 to 1938–39 ..	55,935	38,416	4,118	34,700	35,812	374	43	169,398
1945–46 ..	62,520	29,634	8,188	21.034	20,929	67	38	142,410
1946–47 ..	15,682	48,971	705	27,906	23,800	139	59	117,262
1947–48 ..	95,227	46,962	10,685	32,524	34,500	118	100	220,116
1948–49 ..	64,704	49,064	14,317	26,136	36,250	156	76	190,703
1949–50 ..	81,939	57,434	11,778	28,351	38,500	127	92	218,221
Average, 1940–41 to 1949–50 ..	50,883	35,758	7,151	25,078	26,562	118	49	145,599
AVERAGE YIELD PER ACRE (BUSHELS).(*a*)								
Average, 1929–30 to 1938–39 ..	13.00	12.54	14.88	9.84	11.34	21.73	20.63	11.81
1945–46 ..	16.57	9.11	20.86	9.72	11.40	13.38	21.20	12.46
1946–47 ..	3.50	13.99	2.84	11.08	9.81	18.47	18.09	8.90
1947–48 ..	18.88	14.55	23.11	13.70	12.50	15.20	20.90	15.86
1948–49 ..	16.02	16.38	23.56	12.67	12.64	22.69	18.23	15.15
1949–50 ..	20.42	20.31	19.63	14.95	13.30	23.26	20.55	17.83
Average 1940–41 to 1949–50 ..	13.27	13.09	18.47	11.90	11.60	19.72	19.01	12.82

(*a*) 60 lb. per bushel.

A graph showing the expansion of the area sown to wheat for grain in Australia since 1860 appears on page 973 while a graph showing the distribution of areas growing wheat for grain throughout Australia in 1947–48 appears on pp.977–8. Similar graphs showing the distribution of wheat areas in 1924–25 and 1938–39 appeared in Official Year Book No. 22, p. 695, and Official Year Book No. 34, p. 451, respectively.

(ii) *Production.* Apart from the variations in the area sown, the size of the wheat harvest in Australia is largely determined by the nature of the season and inconsistencies in this respect are reflected in the yearly production.

It should be noted, however, that with improved farming methods, including the proper tillage of the soil, rotation of crops, the growing of suitable varieties and the application of fertilizers, average yields per acre during five decades to 1950 have shown a continued improvement.

Australia's wheat production in 1949–50 was 218.2 million bushels, representing an average yield of 17.83 bushels per acre. This was 72.6 million bushels more than the average for the decennium ended 1949–50 and 48.8 million bushels more than the average for the ten years ended 1938–39.

(iii) *Average Yield.* Short-term variations in this are due chiefly to the vagaries of the seasons. The best average yields for single seasons since 1901 were obtained in 1920–21, 16.08 bushels; in 1942–43, 16.78 bushels; and in 1949–50, 17.83 bushels.

(iv) *Decennial Averages,* 1861–70 *to* 1941–50. The following table shows the average area, production and yield per acre for decennial periods since 1861, together with the average wholesale price since 1871. Up to and including 1939 the price quoted represents the arithmetic mean of the annual averages at Melbourne (f.o.r. Williamstown), and may be accepted as fairly representative for Australia; from 1940 the price represents the average return to the grower for all wheat, bulk and bagged, f.o.r. ports basis.

WHEAT FOR GRAIN: AVERAGE AREA, PRODUCTION AND WHOLESALE PRICE, AUSTRALIA.

Decennium.	Area.	Production.	Yield per Acre.	Average Wholesale Price.
	'000 Acres.	'000 Bushels.	Bushels.	*s.* *d.*
1861–70	831	10,622	12.77	(*a*)
1871–80	1,646	17,711	10.76	5 1
1881–90	3,258	26,992	8.29	4 7
1891–1900	4,087	29,934	7.32	3 8
1901–10	5,711	56,058	9.82	3 10
1911–20	8,928	95,480	10.69	5 0
1921–30	11,291	135,400	11.99	5 8
1931–40	14,176	177,758	12.54	3 4
1941–50	11,358	145,599	12.82	(*b*) 7 8

(*a*) Not available. (*b*) Subject to revision. *See* letterpress above.

(v) *Relation to Population.* The main wheat-producing States of Australia are New South Wales, Victoria, South Australia and Western Australia. Queensland production normally approaches local demands, but Tasmania imports from the mainland to satisfy its needs, though partly in exchange it ships flour made from local wheat which is particularly suitable for biscuits. Normally the production of wheat greatly exceeds Australian requirements, and from half to three-quarters of the crop is exported overseas.

0. **Varieties of Wheat Sown.**—(i) *General.* The breeding of wheat suitable to local conditions has long been established in Australia. Farrar (1845–1905) did invaluable work in pioneering this field and the results of his labour and the continued efforts of those who have since followed him have proved of immense benefit to the wheat industry of Australia. Their efforts have resulted in better average yields, a greater uniformity of sample, with which has accrued certain marketing advantages, as well as an improvement in the quality of wheat grown. More than 1,000 different varieties of Australian wheats have been catalogued by the Commonwealth Scientific and Industrial Research Organization, but the number of the principal varieties grown during each season is restricted to about 40.

(ii) *States*, 1950. Particulars of the varieties of wheat sown and the areas thereunder were collected annually up to 1940. The collection was then suspended but was resumed in 1946–47 and was collected again in the four main wheat States for the 1948–49 and 1950–51 seasons. Details of the nine principal varieties sown in 1950 in the four main producing States and the proportion each bears to the total area sown are given in the following table.

WHEAT: PRINCIPAL VARIETIES SOWN, 1950.

New South Wales.		Victoria.		South Australia.		Western Australia.	
Variety.	Proportion.	Variety.	Proportion.	Variety.	Proportion.	Variety.	Proportion.
	%		%		%		%
Bencubbin ..	35.73	Quadrat ..	38.27	Bencubbin ..	17.97	Bungulla ..	29.61
Gabo ..	13.97	Insignia ..	22.50	Gabo ..	14.01	Bencubbin ..	24.89
Kendee ..	6.63	Pinnacle ..	15.04	Warigo ..	8.57	Gluclub ..	13.24
Ford ..	5.02	Bencubbin ..	7.06	Quadrat ..	4.95	Kondut ..	8.37
Charter ..	4.89	Magnet ..	6.21	Waratah ..	4.62	Koorda ..	3.33
Celebration ..	4.34	Pindar ..	2.03	Reldep ..	4.30	Eureka ..	2.91
Bordan ..	3.91	Diadem ..	2.00	Scimitar ..	4.07	Ranee ..	2.61
Magnet ..	2.81	Baldmin ..	1.55	Marathon ..	3.89	Wongoondy ..	1.73
Quadrat ..	2.71	Ghurka .	1.52	Gluyas ..	3.64	Merredin ..	1.36
All other (*a*) ..	19.99	All other (*a*)	3.82	All other ..	33.98	All other ..	11.95
Total ..	100.00	Total ..	100.00	Total ..	100.00	Total ..	100.00

(*a*) Includes not stated.

Continued progress in the breeding of new and better wheats has resulted in many changes in the varieties sown. Bencubbin, although not as widely sown as in 1948, retained its position as leading variety in New South Wales and South Australia, being displaced by Bungulla in Western Australia. Quadrat is still the leader in Victoria at 38.27 per cent., although the area planted to Insignia increased considerably since 1948. The varieties which were second in importance in the other States were Gabo in New South Wales and South Australia, and Bencubbin in Western Australia.

10. **F.A.Q. Standard of Wheat.**—The Chambers of Commerce in each of the four main wheat States each year determine the "f.a.q." standard for the State. "F.a.q." means "fair average quality", and the standard is used as the basis for sales of the season's crop. It represents the average quality for the season, and this average varies from year to year, and from State to State. "F.a.q." is an Australian term, and the method differs from that of other countries which sell according to sample, or (as in Canada) according to grades which are fixed, and do not vary from year to year.

Samples of wheat are obtained by the Chambers of Commerce from the different wheat districts, and are mixed to give a representative sample of the whole crop. From this representative sample the f.a.q. weight is determined by the use of the Schopper one-litre scale chondrometer.

The following table sets out the f.a.q. weight of a bushel of wheat in each of the four main wheat-producing States from 1946–47 to 1950–51.

F.A.Q. STANDARD WEIGHT OF A BUSHEL OF WHEAT.

(lb.)

Year.	New South Wales.	Victoria.	South Australia.	Western Australia.
1946–47	62½	63½	61½	63
1947–48	60½	60½	61	64½
1948–49	63½	63	63½	63½
1949–50	63	64	62	64½
1950–51	61½	62½	64½	64½

11. **Price of Wheat.**—(i) *Home Consumption.* The price charged by the Australian Wheat Board for wheat sold to millers for gristing into flour for consumption in Australia and for wheat sold as stock feed is shown in the table below for the years indicated.

AUSTRALIAN WHEAT BOARD'S PRICE FOR WHEAT FOR HOME CONSUMPTION : AUSTRALIA.

(s. d. per Bushel, Bulk Basis).

Particulars.	1939.	1946.	1947.	1948.	1949.	1950(*a*).	1951.
For Flour ..	(*b*)	(*c*) 3 11	(*c*) 3 11	6 3	6 8	6 8	7 10
For Stock Feed ..	(*b*)	(*d*) 4 3	4 11	6 3	6 8	6 8	7 10

(*a*) Excludes 5d. per bushel subsidy paid by the Commonwealth Government, making the total return to growers 7s. 1d. per bushel, bulk basis. (*b*) Not available. (*c*) Excludes 1s. per bushel recovered from Flour Tax and included in advances to growers. (*d*) Disregards subsidies paid by the Commonwealth Government which were included in advances to growers. These approximated 8d. per bushel.

(ii) *Export Wheat Prices.* (*a*) *Australian Wheat Board's Basic Selling Price.* Details of the export wheat prices are given in the table below for the years stated. Owing to changes which have occurred in the manner of selling export wheat, it is not possible to quote prices on a strictly comparable basis throughout the period covered by the table. The prices for 1939 represent the "weighted average shippers' limits f.o.r. ports for growers' bagged and bulk lots, Sydney, Melbourne and Adelaide." Following the acquisition of the 1939–40 and later wheat crops by the Commonwealth Government, it was no longer possible to record prices on this basis. The prices shown below for the years 1946 to 1951 are the basic export selling prices of the Australian Wheat Board.

The quotations are more or less nominal, as the market is "broad" and wheat is sold at times above and below this basic price, depending upon conditions of sale. Much of the wheat is sold at prices fixed under contract for delivery over lengthy periods. The prices shown below do not, therefore, necessarily represent the prices actually received for wheat currently being shipped. This matter is referred to in sub-paragraph (*b*) below.

With the introduction of the International Wheat Agreement (*see* par. 6 preceeding) from August, 1949, it has become necessary to distinguish between prices applicable under the Agreement and those applicable to excess wheat sold above the quota fixed under the Agreement. The price at which wheat is sold overseas, therefore, may be broadly classified as follows :—(i) wheat sold within the terms fixed by the International Wheat Agreement, and (ii) wheat sold in excess of the quota (at present 88.7 million bushels) fixed under the Agreement at prices negotiated on the "free" market.

As from August, 1949, under the terms of the International Wheat Agreement, Australia has undertaken to sell, if required, 80.8 million bushels (since increased to 88.7 million bushels) per year (August to July) to contracting importing countries. The prices at which Australia is prepared to sell wheat under the terms of the Agreement are shown in terms of Australian currency in the table below. To July, 1951, this has been the maximum price prescribed by the Agreement. As the prices were fixed basically in terms of gold the maximum prices expressed in terms of Australian currency rose from 11s. 2d. prior to devaluation to 16s. 1d. per bushel after devaluation (19th September, 1949). After commitments under the International Wheat Agreement have been met, Australia is free to sell any additional wheat available at any price which may find a market.

AUSTRALIAN WHEAT BOARD'S SELLING PRICE FOR WHEAT FOR EXPORT: AUSTRALIA.

(s. d.)

Year ended December.	Average price per bushel for bulk and bagged lots f.o.r. ports basis.	Year ended July.	Average price per bushel for f.a.q. bulk wheat, f.o.b. basis.	
			Wheat for sale under the International Wheat Agreement.	Wheat for sale other than under the International Wheat Agreement.
	s. d.		*s. d.*	*s. d.*
1939(*a*)	2 4	1950	15 5	18 6
1946	10 11	1951	16 1	18 9
1947	16 8			
1948	18 8			
1949(*b*)	15 1			

(*a*) Weighted average of shippers' limits for growers' bulk and bagged lots, Sydney, Melbourne and Adelaide, for eight months ended August, 1939. (*b*) Average for seven months ended July, 1949.

(*b*) *Average Bushel Value of Wheat Actually Exported.* The following table shows for the years indicated the wheat price used in compiling the Export Price Index. The figure for 1939 represents the weighted average of shippers' limits f.o.r. ports for growers' bagged and bulk lots, Sydney, Melbourne and Adelaide. For 1946 and succeeding years the prices are based on the average actual realizations for current shipments, as it was impossible to determine representative average prices at which current sales were being effected because a very large proportion of Australia's exportable wheat was sold forward on long-term contracts at widely differing prices outside the basic price shown in the table above. The prices shown in the following table, therefore, give the average realizations f.o.b. for wheat shipped during the years shown.

AVERAGE VALUE OF WHEAT ACTUALLY EXPORTED: AUSTRALIA.

(s. d.)

Particulars.	Year ended December.					Year ended July.	
	1939.	1946.	1947.	1948.	1949.(*a*)	1950.	1951.
Average actual realizations per bushel f.o.b. basis	2 4	10 1	14 5	18 0	15 0	16 2	17 4

(*a*) Average for seven months ended July.

(iii) *Payments to Growers.* Reference is made in par. 5 (v) of this section to the amounts paid to growers from the wheat pools.

12. **Value of the Wheat Crop.**—The estimated value of the wheat crop in each State and in Australia during the seasons 1948–49 and 1949–50 is shown below. The values are on a gross basis at the principal market in each State and are based upon payments made to producers. Pending the finalizing of the accounts of the Australian Wheat Board values for 1949–50 are subject to revision.

WHEAT FOR GRAIN : VALUE OF CROP(a), 1948–49 AND 1949–50.

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	A.C.T.	Australia.
1948–49—								
Aggregate value £	37,676,350	25,543,904	7,172,220	15,948,770	20,783,857	60,380	38,699	107,224,180
Value per acre ..	£9/6/7	£8/10/6	£11/16/0	£7/14/7	£7/5/0	£8/15/10	£9/5/11	£8/10/5
1949–50—								
Aggregate value £	48,306,460	33,708,712	6,688,519	17,660,298	22,330,796	48,750	54,221	128,797,756
Value per acre ..	£12/0/10	£11/18/4	£11/2/11	£9/6/3	£7/14/4	£8/18/2	£12/3/2	£10/10/5

(a) Gross value of total crop, including drought relief and also seed used on farm, but excluding value of straw.

13. **Production and Disposal of Wheat in Australia.**—In the following table details are given of the production of wheat and its disposal during each of the cereal years ended 30th November, 1947 to 1951 in comparison with the average for the three years ended November, 1937 to 1939. The particulars respecting local consumption refer to sales actually executed by the Australian Wheat Board, whilst those respecting exports represent actual shipments. (For particulars of production and exports from 1860 *see* graph, p. 974.)

WHEAT : PRODUCTION AND DISPOSAL, AUSTRALIA.

('000,000 Bushels.)

Particulars.	Average, Three Years ended 30th November, 1939.	Year ended 30th November— 1947.	1948.	1949.	1950.	1951.
Opening stocks (including flour as wheat)	10.2	20.0	13.3	26.3	19.0	43.8
Production	164.7	117.3	220.1	190.7	218.2	184.2
Total Available Supplies ..	174.9	137.3	233.4	217.0	237.2	228.0
Exports—						
Wheat	75.0	12.0	86.9	82.5	82.8	85.9
Flour as wheat	30.6	32.6	43.0	35.7	36.9	41.6
Local Consumption—						
Flour as wheat	30.9	33.5	33.6	34.5	35.5	37.6
Stock feed	9.3	22.2	20.7	22.6	23.5	27.4
Seed..	14.6	13.8	12.5	12.2	11.6	*a* 10.7
Breakfast foods and other uses ..	(*b*)	4.2	4.2	4.2	3.0	4.3
Balance retained on farm (excluding seed)	(*c*)	4.7	3.9	4.2	4.7	4.0
Closing stocks (including flour as wheat)	14.5	13.3	26.3	19.0	43.8	19.4
Total Disposals	174.9	136.3	231.1	214.9	241.8	230.9
Excess (+) or Deficiency (−) of Disposals in respect of Available Supplies (*d*)	..	−1.0	−2.3	−2.1	+4.6	+2.9

(*a*) Subject to revision. (*b*) Included with flour (local consumption.) (*c*) Included with stock feed. (*d*) Includes allowance for unrecorded movements in stocks, gain or loss in out-turn, etc.

14. **Consumption of Wheat in Australia.**—Details of the average Australian consumption of wheat as flour, for stock feeding and for seed are shown in the following table in total and per head of population for the periods of three years ended November, 1939 and 1950.

CONSUMPTION OF WHEAT : AUSTRALIA.

Particulars.	Average, 1936–37 to 1938–39.		Average, 1947–48 to 1949–50.	
	Total.	Per Head of Population.	Total.	Per Head of Population.
	Tons.(*a*)	lb.	Tons.(*a*)	lb.
Flour—As flour	667,400	194.3	745,100	187.8
	mill. bush.	bush.	mill. bush.	bush.
Flour—Equivalent as Wheat (*b*) ..	30.9	4.50	34.5	4.35
Wheat for—				
Stock Feed	9.3	1.35	21.9	2.76
Seed	14.6	2.13	12.2	1.54
Total as Wheat	54.8	7.98	68.6	8.65

(*a*) Ton = 2,000 lb. (*b*) One ton (2,000 lb.) of flour is taken to be equivalent to 46.3 bushels of wheat.

15. **Exports of Wheat and Flour.**—(i) *Quantities.* The following table shows particulars of the exports of wheat and flour and total of both in terms of wheat for each of the years 1945–46 to 1949–50 compared with the average for the five years ended 1938–39. For the sake of convenience, flour has been expressed at its equivalent in wheat, 1 ton of flour being taken as equal to 46.3 bushels of grain. Wheat and flour have been imported to tide over lean seasons on only two occasions since 1900; in 1902–3 the wheat harvest was as low as 12,378,000 bushels, and wheat and flour representing 12,468,000 bushels of wheat were imported, whilst an equivalent of 7,279,000 bushels was imported in 1914–15 to supplement the yield of 25 million bushels produced in that season. During the five years ended 1949–50 exports in terms of wheat averaged 83,466,000 bushels compared with the average of 106,432,000 bushels for the five years ended 1938–39.

WHEAT AND FLOUR : EXPORTS FROM AUSTRALIA.

Year.	Quantity.				Value (£'000.)		
	Wheat.	Flour.		Total as Wheat.	Wheat.	Flour.	Total.
		As Flour.	As Wheat. (*a*)				
	'000 bush.	Tons. (2,000 lb.)	'000 bush.	'000 bush.			
Average, 1934–35 1938–39 ..	76,473	647,073	29,959	106,432	14,813	5,058	19,871
1945–46	12,484	518,876	24,024	36,508	6,223	11,337	17,560
1946–47	12,176	765,098	35,424	47,600	6,338	22,535	28,873
1947–48	60,174	784,370	36,316	96,490	52,813	31,823	84,636
1948–49	83,030	854,780	39,576	122,606	64,705	33,721	98,426
1949–50	78,426	771,109	35,702	114,128	62,173	26,333	88,506

(*a*) One ton (20,000 lb.) of flour is taken to be equivalent to 46.3 bushels of wheat.

(ii) *Destination.* (*a*) *Wheat.* The following table shows the exports of wheat to various countries for each of the five years ended 1949–50, and the average for the five years ended 1938–39.

WHEAT : EXPORTS FROM AUSTRALIA.
('000 Bushels).

Country to which Exported.	Average, 1934–35 to 1938–39.	1945–46.	1946–47.	1947–48.	1948–49.	1949–50.
United Kingdom	45,195	..	..	17,226	34,523	9,435
India	1,662	9,123	6,692	21,336	16,939	35,254
New Zealand	1,537	944	4,332	4,401	7,395	5,756
Union of South Africa ..	602	286	38	5	1,623	2,242
Other British Countries ..	3,985	993	1,105	4,900	4,885	2,435
Egypt	503	..	1	509	8,510	6,511
Finland	..	..	..	..	..	1,337
Japan	6,471	..	..	..	1,843	6,885
Netherlands	760	..	..	402	352	1,339
Persia (Iran)	..	..	..	23	2,260	1,023
Spain	246	..	..	..	..	1,655
Sweden	..	..	..	556	746	1,029
Other Foreign Countries ..	15,512	1,138	8	10,816	3,954	3,525
Total	76,473	12,484	12,176	60,174	83,030	78,426

(*b*) *Flour.* The following table shows the exports of flour to various countries for each of the five years ended 1949–50, and the average for the five years ended 1938–39 :—

FLOUR : EXPORTS FROM AUSTRALIA.
(Tons of 2,000 lb.)

Country to which Exported.	Average, 1934–35 to 1938–39.	1945–46.	1946–47	1947–48.	1948–49.	1949–50.
United Kingdom	142,912	3,267	99,954	56,366	233,544	35,236
Ceylon	16,915	152,040	171,191	190,104	187,932	131,348
Hong Kong	44,966	28,231	33,050	21,988	9,820	90,699
India	2,732	95,115	49,581	58,922	71,778	188,358
Malaya (British)	63,309	117,749	194,036	136,255	100,223	77,831
Mauritius	54,960	22,969	42,243	46,367	19,722	33,204
Singapore	(*a*)	..	..	4,321	14,936	21,345
Sudan Anglo-Egyptian ..	4,060	..	..	28	5,446	15,214
Other British Countries ..	5,623	68,562	59,371	*b* 120,566	67,178	32,987
Egypt	24,284	149	37,545	85,841	42,869	53,759
Japan	722	1,578	4,409	1,887	124	18,649
Siam	3,175	..	..	..	3,249	12,068
Other Foreign Countries ..	283,415	29,216	73,718	61,725	97,959	60,411
Total	647,073	518,876	765,098	784,370	854,780	771,109

(*a*) Included with Malaya (British). (*b*) Includes 57,620 tons, Palestine.

16. **Stocks of Wheat and Flour.**—Stocks of wheat and flour held by each State at 30th November in each year 1939 and 1946 to 1950, and the total in terms of wheat, are shown in the following table. The source of these data is the Australian Wheat Board, but, in order to maintain comparability with pre-war figures, adjustments have been made where possible to allow for stocks estimated to be held by merchants, bakers and farmers.

WHEAT AND FLOUR: STOCKS AT 30th NOVEMBER. (a)

30th November—	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Total.
WHEAT (BUSHELS).							
1939	5,059,320	3,435,783	304,199	5,139,508	2,114,766	162,251	16,215,827
1946	10,510,000	1,994,000	751,000	940,000	884,000	62,000	15,141,000
1947	1,571,000	3,735,000	372,000	1,715,000	766,000	217,000	8,376,000
1948	13,102,000	3,227,000	1,273,000	3,890,000	583,000	386,000	22,461,000
1949	6,656,000	4,034,000	838,000	1,490,000	1,642,000	110,000	14,770,000
1950	15,650,000	10,943,000	1,614,000	6,360,000	5,143,000	170,000	39,880,000
FLOUR (TONS OF 2,000 LB.).							
1939	34,875	27,350	5,292	21,479	8,592	1,695	99,283
1946	28,000	35,997	5,521	20,000	15,287	726	105,531
1947	30,244	47,242	4,001	9,400	15,132	1,089	107,108
1948	20,505	24,609	5,637	17,000	15,163	117	83,031
1949	26,082	19,407	3,978	16,700	24,107	443	90,717
1950	26,462	35,720	5,755	6,450	8,925	1,120	84,432
TOTAL IN TERMS OF WHEAT (BUSHELS).							
1939	6,674,033	4,702,088	549,219	6,133,986	2,512,576	240,728	20,812,630
1946	11,806,400	3,660,661	1,006,622	1,866,000	1,591,788	95,614	20,027,085
1947	2,971,297	5,922,305	557,246	2,150,220	1,466,611	267,421	13,335,100
1948	14,051,381	4,366,397	1,533,993	4,677,100	1,285,047	391,417	26,305,335
1949	7,863,597	4,932,544	1,022,181	2,263,210	2,758,154	130,511	18,970,197
1950	16,875,191	12,596,836	1,880,457	6,658,635	5,556,227	221,856	43,789,202

(a) One ton of flour is treated as equivalent to 46.3 bushels of wheat.

17. **Flour Milling.**—Particulars of the grain-milling industry are given in some detail in Chapter XXIV.—Manufacturing Industry. The following table summarizes the operations of flour mills in Australia for the years 1938–39 and 1945–46 to 1949–50.

OPERATIONS OF FLOUR MILLS: AUSTRALIA.

Particulars.	Unit.	1938–39.	1945–46.	1946–47.	1947–48.	1948–49.	1949–50.
Number of mills ..	No.	172	170	172	167	164	161
No. of persons employed ..	,,	3,783	4,099	4,442	4,623	4,768	4,541
Wheat milled ..	'000 bus.	66,999	63,416	73,780	76,927	83,387	73,066
Output of Flour(a)	,, tons	1,373	1,219	1,490	1,555	1,635	1,504
,, ,, Bran ..	,, ,,	289	238	288	308	319	273
,, ,, Pollard	,, ,,	284	256	316	326	355	317

(a) Includes wheatmeal for baking.

18. **Bulk Handling of Wheat in Australia.**—(i) *Development of the Bulk Handling System.* Methods of handling wheat in bulk have been discussed in Australia since the first exportable surpluses were produced, but no positive action was taken to implement any scheme until serious losses from vermin and weevils occurred in wheat which had been stacked during the 1914–18 War, when the bumper harvest of 1915, combined with the restriction on export movements, created serious storage difficulties.

Recommendations by many of the earlier investigators that some system of bulk handling be introduced were received with apathy on the part of most growers and met with so much determined opposition from millers, grain merchants and railway authorities that it was not until 1917 that the gravity of the storage situation led to the appointment by the Commonwealth Government of the Wheat Storage Commission. After extensive investigations, the Commission made certain recommendations which were incorporated in the Wheat Storage Act 1917, under which the Commonwealth Government made available the sum of almost £3,000,000 to finance State installation of bulk handling facilities. In New South Wales legislative action to inaugurate the system had been taken in 1916, but it was not until the 1920–21 season that the scheme became operative. Western Australia made studies of the system in operation in New South Wales, and evolved a system of horizontal storage as contrasted to vertical storage, and introduced this system in 1935. Victoria, having had the benefit of the New South Wales and Western Australian experience, introduced in the 1938–39 season a system combining the best features of both. South Australia, owing to the distribution of its wheatlands, and the relatively short hauls to the seaboard which can be economically effected by motor transport, decided that the establishment of bulk handling methods was unwarranted, while Queensland, because of similar conditions, and the small wheat producing State of Tasmania have not found bulk handling necessary.

(ii) *Advantages and Disadvantages of the Bulk Handling System.* Although the optimistic estimates of cost reductions envisaged by the early proponents of the scheme have not been realized, there is no doubt that considerable saving of time and money has occurred as a result of the installation of bulk handling systems. Briefly, the main advantages are :—

(*a*) Reduction of handling costs at farms, sidings and terminals. These savings have been made in the costs of the bags and their sewing and labour costs in stacking. At the terminals, the mechanical loading of ships has resulted in considerable saving in time, thus speeding up the turn-around and reducing the usual costs of shipping.

(*b*) Reduction in the deterioration of long standing stacks of bagged wheat.

(*c*) Protection of grain from mice, weevils, climatic conditions and leakage.

There are, of course, disadvantages, but there appears no doubt that the advantages outweigh the disadvantages, and, in fact, the more serious of the disadvantages can be overcome by positive action on the part of the authorities controlling the system. The main disadvantages of the New South Wales and Victorian systems are :—

(*a*) Heavy initial capital cost in erection of silos and terminals and construction of bulk waggons for transporting the bulk wheat.

(*b*) The system tends to choke in flush seasons or through deferment of sales by growers. It cannot hope to provide all the storage space required in flush years.

(*c*) In years of short crops, wheat receipts may fall short of silo capacity, which involves a loss on operating costs.

These disadvantages have been minimized in the Western Australian system because of its relatively low cost and flexibility.

(iii) *General Description of the Bulk Handling System.* Silos or elevators are erected at railway sidings in districts where the wheat harvest has been shown to be sufficiently heavy to warrant their installation. In New South Wales and Victoria, these silos are generally concrete and steel vertical storage bins, with mechanical loading devices which, in some cases, incorporate weighing machinery to check the wheat out as well as into the silo. In Western Australia, the silos are horizontal storage bins made of wood and corrugated iron, which are demountable, and the loading machinery is of a portable type.

At the terminals, the construction is generally of steel and concrete with loading booms which permit the wheat to be poured directly into the ships' holds, where it is subsequently " trimmed " either by a special wheat trimming machine or by hand.

Bulk wheat exports are effected by the following methods :—

(*a*) Discharge from orthodox terminal elevators at Sydney and Newcastle (New South Wales), Geelong (Victoria) and Bunbury and Fremantle (Western Australia) and from provisional installations at Geraldton (Western Australia).

(*b*) Transfer from bulk trucks to ships without going through terminal elevators, as at Geraldton.

(*c*) De-sacking into ships' holds at South Australian ports.

In addition to full cargoes, exports of bagged wheat comprise parcels in liners and quantities used under shipping rules for topping-up bulk cargoes.

(iv) *Bulk Handling in the States.* A brief history of the inauguration of bulk handling and particulars of the operation and projected extensions of the system in the three States concerned are set out below :—

(*a*) *New South Wales.* The Grain Elevator Act was passed on 16th August, 1916, but owing to war-time conditions and financial obstacles, progress was delayed. However, finance was obtained from the Commonwealth under the terms of the Wheat Storage Act 1917, and the work commenced in that year. The initial plans provided for 70 country silos with capacities ranging from 50,000 to 500,000 bushels with a total of 15.4 million bushels, and a terminal elevator at Sydney with a capacity of 6,500,000 bushels. Construction of North and North-western silos and the Newcastle terminal was deferred, and the short crops of the early 'twenties did little to boost the system. Progress was slow until 1925 when the system experienced its first good season, and Government approval for the construction of more silos was given. In 1929, a further programme of expansion was commenced, but it was not until after the profitable operations arising from the heavy crop of 1932–33 that the expansion became more rapid. Between 1927 and 1936, 102 country plants were added to the system, the terminal at Sydney was enlarged and a terminal erected at Newcastle. At present, there are 180 elevators situated at the more important wheat receiving stations throughout the State, with a storage capacity of 24,478,000 bushels, as well as terminal elevators at Sydney and Newcastle, which have a receiving capacity per day of 6,000 tons and 2,000 tons respectively.

Work is proceeding on additions to country silos and the extension to the Newcastle terminal. In addition, four wheat storage sub-terminals at Junee, Temora, Parkes and Werris Creek are being erected to overcome the shortage of sacks and the immediate difficulties involved in constructing permanent silos at country centres. Work is also proceeding on the erection of about 60 temporary country bulkheads, storing about 100,000 bushels each.

The following table illustrates the development of the bulk handling system in New South Wales from its inception in 1920–21 :—

GRAIN ELEVATORS : WHEAT RECEIVED, NEW SOUTH WALES.

Season.	Elevators in Country Districts.		Storage capacity of Elevators available in Country Districts. (*a*)	Wheat Received.			Proportion of Total Crop Received in Elevators.
	Available.	Used.		In Country Elevators.	In Terminal Elevators from Non-Silo Stations.	Total.	
	No.	No.	Bushels.	Bushels.	Bushels.	Bushels.	%
1920–21 ..	28	28	5,450,000	1,941,694	..	1,941,694	3.5
1925–26 ..	62	62	13,500,000	8,295,148	841,185	9,136,333	27.0
1930–31 ..	99	99	16,373,000	22,948,116	724,972	23,673,088	35.9
1935–36 ..	158	156	21,773,000	24,811,726	295,897	25,107,623	51.4
1940–41 ..	175	159	23,548,000	11,453,207	7,140	11,460,347	47.9
1945–46 ..	180	178	24,478,000	25,825,915	..	25,825,915	41.3
1946–47 ..	180	90	24,478,000	*b* 5,835,923	..	*b* 5,835,923	37.2
1947–48 ..	(*c*) 181	(*c*) 181	*c*24,578,000	43,029,765	272,202	43,301,967	45.5
1948–49 ..	180	180	24,478,000	36,103,108	..	36,103,108	55.8
1949–50 ..	180	180	24,478,000	40,208,521	88,164	40,296,685	49.2

(*a*) At one filling. (*b*) New South Wales wheat only. In addition, 5,377,386 bushels of Victorian wheat were handled through the country system. (*c*) Includes one leased silo not part of the system (*b*) *Victoria.* Although the recommendations of a Royal Commission were embodied in an enabling bill in 1916 it failed to pass, and despite great damage to war-stored grain from mice and weevils, no action was taken on the offer of Commonwealth aid in 1917. In 1922–23 a further attempt to establish the system failed. It appeared that a start would be made in 1925 when New South Wales had its first good crop since the inception of the bulk handling system, but subsequent experience in that State discouraged further action in Victoria. However, the severe depression of the early 'thirties, combined with the recurrent mouse plagues and the reduction in freight on bulk wheat gave rise to increasingly urgent demands from farmers for the installation of bulk handling facilities, and eventually other groups lent their weight in support. The Grain Elevators Board was constituted on 1st February, 1935, under the provision of the Grain Elevators Act 1934. The first group of elevators, comprising 48 country elevators and the Geelong terminal elevator commenced operations in 1938–39, when 10,782,190 bushels were handled. The construction of the balance of the elevators, as planned in the initial scheme, proceeded from year to year, until completed in the 1944–45 season.

In addition to the elevators erected by the Board, arrangements were made for the leasing of nine existing elevators owned by flour millers at country mills. These elevators are operated by the Board as part of the elevator system.

Amendments to the Grain Elevators Acts were passed in 1950 to permit the construction of elevators at a number of stations not yet provided with bulk handling facilities, and to erect additional bins at stations where the existing storage capacity is inadequate. The shortage of essential construction materials and labour has prevented a commencement of this new work.

Temporary means of extending bulk handling facilities have been adopted pending these extensions and owing to cornsack difficulties. Arrangements are in hand for the construction by the Australian Wheat Board of temporary bulkheads at approximately 50 stations for the 1951–52 season.

The following table sets out the development of the bulk handling system in Victoria for a series of years from 1939–40.

GRAIN ELEVATORS: WHEAT RECEIVED, VICTORIA.

Season.	Elevators.		Terminal.		Wheat Received.	Proportion of Total Crop Received in Elevators.
	Number.	Capacity at one filling.	Number.	Capacity at one filling.		
		'000 Bush.		'000 Bush.	'000 Bush.	
1939–40 ..	48	5,385	1	2,250	10,784	23.9
1945–46 ..	138	14,159	1	4,100	19,231	64.9
1946–47 ..	138	14,159	1	4,100	35,774	73.1
1947–48 ..	138	14,159	1	4,100	34,948	74.4
1948–49 ..	138	14,159	1	4,100	38,739	79.0
1949–50 ..	138	14,159	1	4,100	45,341	78.9

(*c*) *Western Australia.* In 1920, a company known as the Western Australian Grain Growers Co-operative Elevators Ltd. was formed for the purpose of operating bulk handling of wheat, but the company did only exploratory work and was wound up.

Having observed New South Wales experience with vertical storage in concrete silos, Westralian Farmers Co-operative Ltd., in 1929, evolved a new method of horizontal storage, using simple structures of timber and galvanized iron. Simple structures for storage are quite adequate, owing to stable weather conditions and small liability to rain damage. Further, the method of construction allows easy dismantling, movement, and re-erection of bins in areas where they are more urgently required. In 1933, joint action by the Trustees of the Wheat Pool and Westralian Farmers' Co-operative Ltd. led to the registration of Co-operative Bulk Handling Ltd. on 5th April, 1933. The new company took over existing plants and leases and a Deed of Trust dated 24th October, 1933, was entered into between the company and a trustee appointed to represent all growers who put wheat through the system, whereby, after the company had completed its building programme of capital expenditure and the liabilities of the company were paid off, the management and control of the business of the company would be handed over to grower users. This was effected under the provisions of the State Bulk Handling Act, which was proclaimed on 1st February, 1936. In 1943, the building programme of the company having been completed so far as it was then considered necessary, the management and control of the company were handed over to the growers in accordance with the Deed of Trust. Subject to the provision of the Bulk Handling Act, the company is granted the sole right until 31st December, 1955, of receiving wheat in bulk at railway stations and sidings where the company has installations.

In addition to the 234 sidings equipped for bulk handling, the company operates at Geraldton a shipping gallery and conveyor belt, both of which are owned by the State Government, and a silo at Fremantle which had been erected by the Australian Wheat Board during the war for the fumigation of export wheat. Albany has not yet any terminal facilities, and wheat from that district is shipped through Bunbury, where the storage capacity is 8,000 tons.

Owing to the nature of the system in use in Western Australia, particulars of the capacity comparable with those published for New South Wales and Victoria do not exist. The table below sets out the number of sidings equipped for bulk handling, receipts of bulk wheat and the proportion of the marketable harvest represented by the receivals for the seasons indicated.

BULK WHEAT HANDLED : WESTERN AUSTRALIA.

Season.	Total Sidings Equipped.(*a*)	Total Bulk Receivals.	Receivals as a Proportion of Marketable Harvest.
	No.	Bushels.	%
1931–32	5	1,265,000	3.4
1936–37	102	10,376,000	58.3
1941–42	232	33,304,000	(*b*) 97.8
1946–47	234	20,204,000	(*b*) 99.0
1947–48	234	30,903,113	99.0
1948–49	234	32,815,119	(*c*) 100.0
1949–50	234	34,565,140	(*c*) 100.0

(*a*) These figures do not include four bins in Lakes District erected in 1940, a fifth point at Ravensthorpe equipped for the 1947–48 season, and two installations in East and West Yorkrakine built in 1949. These points are removed from the railway and wheat received is transported by road to the rail or direct to the port. They do not include six points at which wheat is directly loaded into railway wagons. (*b*) Quantities affected by war-time restrictions and difficulties. (*c*) In 1948, the Wheat Stabilization Act passed by the Western Australian Parliament as complementary legislation to the Federal Act provided for all bagged wheat to be treated. This is done by the company paying the grower the value of the bag when received and issuing him a bulk wheat receipt.

19. **World Area and Production of Wheat.**—The details in the following table of the world area and production of wheat by countries and continents have been compiled from official sources so far as they are available, but more particularly from the records published by the Food and Agriculture Organization of the United Nations, and the United States Office of Foreign Agricultural Relations. The harvests shown for countries in the Northern Hemisphere are those garnered during the period March to October whilst those for the Southern Hemisphere cover the period November to February following.

WHEAT : AREA, PRODUCTION AND YIELD PER ACRE IN VARIOUS COUNTRIES.

Continent and Country.	Area.(a)			Production.			Yield per acre.		
	Average—		1949.	Average—		1949.	Average—		1949.
	1930–34.	1935–39.		1930–34.	1935–39.		1930–1934.	1935–1939.	
	'000 acres.	'000 acres.	'000 acres.	'000 bushels.	'000 bushels.	'000 bushels.	bus.	bus.	bus.
North America—									
Canada ..	25,682	25,595	27,541	348,560	312,399	367,406	13.6	12.2	13.3
Mexico ..	1,237	1,244	1,310	14,364	14,282	17,269	11.6	11.5	13.2
United States	54,193	57,293	76,751	732,527	758,623	1,146,463	13.5	13.2	14.9
Total (*b*) ..	81,150	84,150	105,650	1,096,000	1,086,000	1,532,000	13.5	12.9	14.5
Europe—									
Austria ..	535	(*c*) 616	550	12,626	(*c*) 15,117	14,000	23.6	(*c*)24.5	25.5
Belgium ..	384	402	420	14,726	16,150	21,890	38.3	40.2	52.1
Bulgaria ..	3,078	3,080	(*d*)	52,864	64,228	(*d*)	17.2	20.9	(*d*)
Czechoslovakia	2,129	(*c*) 2,220	2,075	53,697	(*c*) 59,090	57,000	25.2	(*c*)26.6	27.5
Denmark ..	259	316	205	11,131	14,358	10,950	43.0	45.4	53.4
France ..	13,280	(*c*) 12,724	11,120	305,318	(*c*) 292,568	295,000	23.0	(*c*)23.0	26.5
Germany ..	5,310	(*c*) 5,074	3,437	170,212	(*c*) 176,654	124,853	32.1	(*c*)34.8	36.3
Greece ..	1,612	2,150	1,849	18,414	30,205	28,094	11.4	14.0	15.2
Hungary ..	3,943	4,091	3,506	76,506	(*c*) 91,210	(*d*)	19.4	(*c*)22.3	(*d*)
Ireland ..	43	225	375	1,698	7,689	14,560	39.5	34.2	38.8
Italy ..	12,089	12,635	12,100	252,604	279,519	265,000	20.9	22.1	21.9
Netherlands ..	267	338	256	11,802	15,209	15,627	44.2	45.0	61.0
Poland ..	4,280	4,303	3,571	74,267	77,245	65,439	17.4	18.0	18.3
Portugal ..	1,321	1,227	1,717	18,359	16,066	15,109	14.0	13.1	8.8
Rumania ..	7,703	9,053	(*d*)	103,447	140,816	(*d*)	13.4	15.6	(*d*)
Spain ..	11,236	10,220	9,800	158,081	(*c*) 113,905	110,000	14.1	(*c*)11.1	11.2
Sweden ..	697	740	761	23,214	26,351	26,050	33.3	35.6	34.2
United Kingdom ..	1,522	1,843	1,964	51,176	62,361	79,856	33.6	33.8	40.7
Yugoslavia ..	5,098	5,349	4,411	79,494	96,750	92,445	15.6	18.1	21.0
Total (*b*)	76,033	78,313	68,930	1,516,000	1,632,000	1,485,000	19.9	20.8	21.5
U.S.S.R. (*b*) ..	85,798	98,764	103,000	(*e*) 860,448	1,050,000	1,110,000	10.0	10.6	10.7
Africa—									
Algeria ..	3,893	4,184	3,700	32,571	35,201	39,000	8.4	8.4	10.5
Egypt ..	1,500	1,464	1,471	43,128	45,848	45,000	27.6	31.3	30.6
French Morocco	2,887	3,254	2,475	29,509	23,198	21,500	10.2	7.1	8.7
Tunisia ..	1,995	1,901	2,095	12,956	14,965	20,095	6.5	7.9	9.6
Union of South Africa (*f*) ..	1,516	1,926	2,694	12,301	16,259	14,340	8.1	8.4	5.3
Total (*b*)	12,630	13,720	14,550	135,000	142,000	155,000	10.7	10.3	10.7

See footnotes on next page.

WHEAT: AREA, PRODUCTION AND YIELD PER ACRE IN VARIOUS COUNTRIES—*continued.*

Continent and Country.	Area.(*a*)			Production.			Yield per acre.		
	Average—		1949.	Average—		1949.	Average—		1949.
	1930–34.	1935–39.		1930–34.	1935–39.		1930–1934.	1935–1939.	
	'000 acres.	'000 acres.	'000. acres.	'000 bushels.	'000 bushels.	'000. bushels.	bus.	bus.	bus.
Asia—									
China ..	(*c*) 49,106	(*c*) 48,120	52,717	(*c*) 820,624	(*c*) 715,536	825,000	(*c*)16.7	(*c*)14.9	15.6
Korea ..	809	832	(*d*)	9,048	10,240	(*d*)	11.2	12.3	(*d*)
India ..	33,340	34,492	31,989	355,593	370,660	355,302	10.7	10.7	11.1
Japan ..	1,356	1,738	1,680	36,806	50,133	39,279	27.1	28.8	23.4
Manchuria ..	3,301	2,903	1,384	40,770	35,200	(*d*)	12.4	12.1	(*d*)
Syria and Lebanon ..	1,245	1,363	2,473	14,638	19,485	21,470	11.8	14.3	8.7
Turkey ..	7,023	8,952	9,150	94,796	135,690	95,000	13.5	15.2	10.4
Total(*b*)	102,300	105,900	108,450	1,456,000	1,442,000	1,475,000	14.2	13.6	13.6
South America—									
Argentina ..	17,709	15,834	12,500	243,932	221,769	210,000	13.8	14.0	16.8
Chile ..	1,763	1,963	2,062	27,355	35,562	33,246	15.5	16.1	16.1
Uruguay ..	1,055	1,210	1,200	9,876	13,256	14,000	9.4	11.0	11.7
Total (*b*) ..	21,800	20,500	17,550	295,000	280,000	275,000	13.5	13.7	15.7
Oceania—									
Australia ..	**15,223**	**12,980**	**12,240**	**185,773**	**154,325**	**218,221**	**12.2**	**11.9**	**17.8**
New Zealand	266	221	130	8,037	7,129	4,700	30.2	32.3	36.2
Total(*b*) ..	15,489	13,201	12,370	193,810	161,454	222,921	12.5	12.2	18.0
World Total(*b*)	395,213	414,703	430,500	5,553,000	5,810,000	6,245,000	14.0	14.0	14.5
Totals—									
Northern Hemisphere(*b*)	356,507	378,866	397,886	5,051,164	5,351,186	5,732,739	14.2	14.1	14.4
Southern Hemisphere(*b*)	38,706	35,837	32,614	501,836	458,814	512,261	13.0	12.8	15.7
World Total(*b*)	395,213	414,703	430,500	5,553,000	5,810,000	6,245,000	14.0	14.0	14.5

(*a*) The figures of areas are, as far as possible, those of areas harvested. (*b*) Estimated total including the area and production of countries whose particulars are not shown separately. (*c*) Average of less than five years. (*d*) Not available. (*e*) Production estimates for the U.S.S.R. for the years 1933 and 1934 have been reduced 15 per cent. to take account of heavy harvesting losses. (*f*) Excludes native cultivation.

20. **Exports—Principal Countries.**—The following table shows the net quantities of wheat exported from the chief exporting countries for the period 1934–38 and the years 1948 and 1949 according to statistics recently published by the Food and Agriculture Organization of the United Nations, and the United States Office of Foreign Agricultural Relations.

While Australia's production of wheat ranges between 2 and 4 per cent. of the world's total, its exports account for a much higher proportion of the total quantities shipped. During the five years 1934–38 Australia's share of world wheat exports was almost 20 per cent., but in 1949 the proportion fell to 13 per cent., although the actual quantity shipped was somewhat greater.

WHEAT (*a*) : NET EXPORTS, PRINCIPAL COUNTRIES.(*b*)

Exporting Country.	Average, 1934–38.		1948.		1949.	
	Quantity.	Proportion of World Total.	Quantity.	Proportion of World Total.	Quantity.	Proportion of World Total.
	'000 bushels.	%	'000 bushels.	%	'000 bushels.	%
Canada	175,403	32.74	186,636	19.83	252,505	27.88
Argentina	122,739	22.91	80,434	8.54	67,970	7.50
Australia	**102,406**	**19.11**	**128,064**	**13.61**	**116,986**	**12.91**
U.S.S.R. (Russia)	24,363	4.55	42,989	4.57	51,440	5.68
United States of America ..	22,547	4.21	493,932	52.47	402,593	44.44
All Other	88,333	16.48	9,226	0.98	14,378	1.59
Total	535,791	100.00	941,281	100.00	905,872	100.00
World Production (mil. bush.)	6,058		6,410		6,245	
Proportion of Australia's Production to World Production	% 2.55		% 2.98		% 3.49	

(*a*) Includes flour expressed in terms of wheat. (*b*) In some instances the average for 1934–38 is not strictly comparable with the later years shown, owing to changes of frontiers.

21. **Imports—Principal Countries.**—The net quantities of wheat and flour (expressed in terms of wheat) imported into the principal countries for the periods indicated are shown in the following table :—

WHEAT (*a*) : NET IMPORTS, PRINCIPAL COUNTRIES.(*b*)

Importing Country.	Average 1934–38.		1948.		1949.	
	Quantity.	Proportion of World Total.	Quantity.	Proportion of World Total.	Quantity.	Proportion of World Total.
	'000 bushels.	%	'000 bushels.	%	'000 bushels.	%
United Kingdom	201,098	38.95	197,806	22.04	207,513	23.96
Belgium(*c*)	39,262	7.61	29,126	3.24	24,256	2.80
Brazil	36,373	7.05	31,206	3.48	36,045	4.16
China (*d*)	27,932	5.41	783	0.09	..	..
Netherlands	21,571	4.18	29,545	3.29	18,261	2.11
Germany	21,545	4.17	136,802	15.24	101,480	11.72
Italy	[e] 18,076	3.50	85,898	9.57	73,350	8.47
Switzerland	16,915	3.28	15,619	1.74	16,277	1.88
Greece(*f*)	16,422	3.18	20,370	2.27	15,355	1.77
Austria	8,921	1.73	12,221	1.36	18,721	2.16
France	5,424	1.05	39,422	4.39	10,277	1.19
Ceylon	924	0.18	8,396	0.94	7,834	0.91
Mexico	698	0.13	10,137	1.13	9,295	1.08
Spain	(*g*)	(*g*)	11,405	1.27	8,951	1.03
Japan and Korea	(*g*)	(*g*)	39,256	4.37	72,814	8.41
India and Pakistan ..	(*g*)	(*g*)	53,986	6.02	87,790	10.14
All Other	101,087	19.58	175,598	19.56	157,732	18.21
Total	516,248	100.00	897,576	100.00	865,951	100.00

(*a*) Includes flour expressed in terms of wheat. (*b*) In some instances the average 1934–38 is not strictly comparable with the later years shown, owing to changes of frontiers. (*c*) Includes Luxembourg. (*d*) Includes Manchurian ports. (*e*) Includes Trieste. (*f*) Includes Aegean Islands. (*g*) Net exports.

§ 5. Oats.

1. **Area, Production and Average Yield.**—Oats are usually next in importance to wheat amongst the grain crops cultivated in Australia, but while wheat grown for grain in 1949–50 accounted for 59.42 per cent., oats grown for grain represented only 8.48 per cent. of the area of crops. The area, production and average yield per acre of oats for the years 1945–46 to 1949–50 and the averages for the ten-year periods ended 1938–39 and 1949–50 are shown in the following table :—

OATS FOR GRAIN : AREA, PRODUCTION AND AVERAGE YIELD.

Season.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	A.C.T.	Australia.
				AREA ('000 ACRES).				
Average, 1929–30 to 1938–39 ..	229	478	5	282	369	30	..	1,393
1945–46.. ..	617	511	40	370	396	14	1	1,949
1946–47.. ..	558	454	15	252	425	23	1	1,728
1947–48.. ..	609	650	25	309	495	17	..	2,105
1948–49.. ..	378	540	21	286	532	12	1	1,770
1949–50.. ..	375	483	21	261	585	23	..	1,748
Average, 1940–41 to 1949–50 ..	443	520	19	306	437	17	1	1,743
				PRODUCTION ('000 BUSHELS).(*a*)				
Average, 1929–30 to 1938–39 ..	3,578	5,750	68	2,233	3,973	831	4	16,437
1945–46.. ..	9,997	7,402	830	3,178	4,081	281	5	25,774
1946–47.. ..	2,046	6,402	79	2,780	3,656	595	8	15,566
1947–48.. ..	13,674	15,381	474	5,394	5,411	360	3	40,697
1948–49.. ..	5,779	7,490	419	2,643	6,998	262	10	23,601
1949–50.. ..	7,016	8,718	338	3,464	7,268	577	10	27,391
Average, 1940–41 to 1949–50 ..	6,077	6,785	324	3,007	4,739	434	7	21,373
				AVERAGE YIELD PER ACRE (BUSHELS).(*a*)				
Average, 1929–30 to 1938–39 ..	15.66	12.03	12.77	7.91	10.77	28.15	22.35	11.80
1945–46.. ..	16.20	14.47	20.75	8.60	10.30	20.15	9.21	13.22
1946–47.. ..	3.67	14.10	5.09	11.02	8.60	26.24	12.81	9.01
1947–48.. ..	22.45	23.66	18.97	14.47	10.94	21.09	6.86	19.33
1948–49.. ..	15.28	13.88	19.68	9.23	13.16	22.36	14.14	13.34
1949–50.. ..	18.72	18.04	16.50	13.25	12.43	25.31	28.83	15.67
Average, 1940–41 to 1949–50 ..	13.72	13.06	16.60	9.81	10.85	25.43	13.57	12.26

(*a*) 40 lb. per bushel.

The principal oat-growing States are New South Wales and Victoria, which produce, on the average, more than half the total quantity grown in Australia. Western Australia and South Australia also produce considerable quantities, but in Queensland and Tasmania the output is small.

Oats are mainly used in Australia as feed grain. During the ten years ended 1949–50 the average annual quantity consumed by stock was about 9.8 million bushels, leaving a balance of about 5.7 million bushels for seed purposes, about 3 million bushels for oatmeal and a small quantity for the production of spirits and for malting. Normally the exports of oats are small, but during the three years 1947–48 to 1949–50 heavy shipments, aggregating 28.3 million bushels, were made.

The smallest average yield per acre ever recorded for Australia was that experienced in the abnormally dry season 1944–45, namely, 4.41 bushels, while the largest in the last ten years was that of the season 1947–48, amounting to 19.33 bushels per acre, this being the highest yield since 1920–21.

2. **Price of Oats.**—The average wholesale prices in the Melbourne market for oats of good milling quality for the years 1945–46 to 1949–50 in comparison with 1938–39 are shown in the following table :—

OATS : MELBOURNE AVERAGE WHOLESALE PRICES.

(s. d.)

Particulars.	1938–39.	1945–46.	1946–47.	1947–48.	1948–49.	1949–50.
Average price per bushel ..	3 5½	3 11½	4 3¾	4 6½	4 9¼	6 5½

3. **Value of Oat Crop.**—The estimated values of the oat crop for the seasons 1948–49 and 1949–50 were as follows :—

OATS : VALUE OF CROP (*a*), 1948–49 AND 1949–50.

Particulars.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	A.C.T.	Australia.
1948–49—								
Aggregate value £	1203,990	1,767,858	94,213	563,199	1,753,712	73,020	2,198	5,458,190
Value per acre ..	£3/3/8	£3/7/6	£2/8/7	£1/19/4	£3/5/11	£6/4/10	£2/18/11	£3/1/8
1949–50—								
Aggregate value £	2 133,960	2,739,002	109,708	1,028,322	2,040,330	199,790	3,304	8,254,416
Value per acre ..	£5/13/11	£5/13/4	£5/7/3	£3/18/8	£3/9/10	£8/15/2	£9/11/0	£4/14/6

(*a*) Excludes the value of straw.

4. **Imports and Exports.**—The production of oats in Australia is sufficient to admit of a regular, though usually small, export trade. The quantities and values of oats imported into and exported from Australia during the years 1945–46 to 1949–50 compared with the average for the years 1934–35 to 1938–39 are shown hereunder :—

OATS : IMPORTS AND EXPORTS, AUSTRALIA.

Year.	Imports.		Exports.		Net Exports.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
	Bushels.	£	Bushels.	£	Bushels.	£
Average, 1934–35 to 1938–39	7,723	1,639	286,360	36,458	278,637	34,819
1945–46	1,231,085	251,878	429,163	112,931	— 801,922	— 138,947
1946–47	85	25	106,645	27,934	106,560	27,909
1947–48	177	61	6,803,427	3,945,807	6,803,250	3,945,746
1948–49	278	140	14,853,777	6,160,586	14,853,499	6,160,446
1949–50	797	462	6,625,560	2,303,566	6,624,763	2,303,104

NOTE.—Minus sign (—) denotes net imports.

The quantity of oats imported into Australia is usually not very large, although in 1945–46 imports exceeded exports by 801,922 bushels. Canada was the chief supplier. The previous year when imports exceeded exports was in 1927–28 (by 460,581 bushels) when New Zealand was the main supplier. In 1949–50 the principal countries of destination of the exports were Netherlands, Denmark, Belgium, Norway, Sweden and Italy.

5. **Oatmeal, etc.**—The production of oatmeal amounted in 1949–50 to 420,344 cwt., equivalent to about 2,400,000 bushels of oats, or about 10.2 per cent. of the total production. Prior to the 1939–45 War the exports of oatmeal were small, but in recent years a considerable export trade has developed and in 1949–50 the quantity shipped amounted to 167,307 cwt. or 33.7 per cent. of total production.

6. **World Production.**—The world's production of oats for the year 1950, excluding that produced in U.S.S.R., as compiled by the Food and Agriculture Organization of the United Nations, amounted to 3,242 million bushels. This quantity was harvested from 94 million acres, and represents an average yield of 34.49 bushels per acre. In comparison with this average return per acre, that of Australia for the same period (15.67 bushels) appears very small. Yields in excess of 40 bushels per acre are not uncommon and some European countries record averages in excess of 50 bushels per acre. The following table shows the world's production and average yield for the period 1935–39 and for each of the five years ended 1950.

OATS: WORLD PRODUCTION.

Year.	Area.	Production.	Average Yield per acre.
	Million Acres.	Million Bushels.	Bushels.
Average, 1935–1939	139	4,336	31.26
1946	129	3,920	30.39
1947	128	3,672	28.69
1948(*a*)	91	3,184	34.99
1949(*a*)	93	3,074	33.05
1950(*a*) (*b*)	94	3,242	34.49

(*a*) Excludes U.S.S.R. (*b*) Preliminary. Subject to revision.

§ 6. Maize.

1. **States Growing Maize.**—Maize is grown for grain chiefly in Queensland and New South Wales, the area so cropped in these States during the 1949–50 season being 188,422 acres, or 97 per cent. of the total for Australia. Of the balance, Victoria contributed 5,136 acres and Western Australia 20 acres. The climate of Tasmania is generally unsuitable for the growing of maize for grain although 10 acres were sown in this State in 1949–50. In the States mentioned the crop is also grown to a greater or lesser extent for green fodder, particularly in connexion with the dairying industry.

2. **Area, Production and Average Yield.**—Although maize for grain is grown extensively in other countries, the area sown to maize for grain in Australia has averaged only about 258,222 acres during the past decennium. Compared with the previous year, the area in 1949–50 increased by 11,633 acres but was considerably less than the comparatively large areas of 414,914 and 400,544 acres sown in 1910–11 and 1927–28 respectively.

The area, production and average yield per acre of maize for grain in each State for the years 1945–46 to 1949–50 and the averages for the ten-year periods ended 1938–39 and 1949–50 are given in the following table,

MAIZE FOR GRAIN: AREA, PRODUCTION AND AVERAGE YIELD.

Season.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	A.C.T.	Australia.
AREA (ACRES).								
Average, 1929–30 to 1938–39 ..	114,881	18,413	161,380	12	15	..	7	294,708
1945–46.. ..	92,416	6,809	136,445	..	48	11	..	235,729
1946–47.. ..	110,038	8,107	141,487	..	98	6	2	259,738
1947–48.. ..	86,979	7,968	127,703	..	90	7	1	222,748
1948–49.. ..	77,820	6,460	97,598	3	72	5	..	181,958
1949–50.. ..	72,872	5,136	115,550	..	20	10	3	193,591
Average, 1940–41 to 1949–50 ..	100,047	7,773	150,325	4	65	7	1	258,222
PRODUCTION ('000 BUSHELS).(a)								
Average, 1929–30 to 1938–39 ..	3,072	631	3,525	..	..	..	..	7,228
1945–46.. ..	2,561	308	2,860	..	..	..	..	5,729
1946–47.. ..	2,507	357	2,943	..	1	..	..	5,808
1947–48.. ..	2,356	324	3,487	..	1	..	..	6,168
1948–49.. ..	2,476	260	2,451	..	1	..	..	5,188
1949–50.. ..	2,408	194	3,393	..	1	..	..	5,996
Average, 1940–41 to 1949–50 ..	2,752	304	3,573	..	1	..	..	6,630
AVERAGE YIELD PER ACRE (BUSHELS).(a)								
Average, 1929–30 to 1938–39 ..	26.74	34.28	21.84	29.84	10.02	..	8.48	24.53
1945–46.. ..	27.71	45.22	20.96	..	9.75	2.45	..	24.30
1946–47.. ..	22.78	44.02	20.80	..	7.99	10.17	15.00	22.36
1947–48.. ..	27.10	40.66	27.30	..	7.17	15.71	11.00	27.69
1948–49.. ..	31.82	40.23	25.12	6.67	6.25	19.20	..	28.51
1949–50.. ..	33.05	37.80	29.36	..	22.05	20.50	10.00	30.97
Average, 1940–41 to 1949–50 ..	27.49	39.09	23.77	30.63	10.78	11.22	8.50	25.67

(a) 56 lb. per bushel.

The average yield for Australia for the past ten years was 25.67 bushels per acre. Among principal producing countries, the United States of America during 1950 averaged 37.38 bushels, Yugoslavia, 16.87 bushels and Italy, 25.44 bushels.

3. **Price of Maize.**—The average wholesale price of maize in the Melbourne market is shown in the following table:—

MAIZE: AVERAGE PRICE, MELBOURNE.

(s. d.)

Particulars.	1938–39.	1945–46.	1946–47.	1947–48.	1948–49.	1949–50.
Average price per bushel	(a) 4 6½	8 5	8 6	8 6	9 7½	11 5

(a) Sydney.

4. **Value of Crop.**—The values of the crop for the seasons 1948–49 and 1949–50 were as follows :—

MAIZE FOR GRAIN : VALUE OF CROP, 1948–49 AND 1949–50.

Particulars.		N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	A.C.T.	Aust.
1948–49—									
Aggregate value	£	1,302,450	140,366	1,197,011	11	425	40	..	2,640,303
Value per acre	..	£16/14/9	£21/14/7	£12/5/4	£3/13/4	£5/18/1	£8/0/0	..	£14/10/3
1949–50—									
Aggregate value	£	1,214,100	123,467	1,467,608	..	434	150	15	2,805,774
Value per acre	..	£16/13/3	£24/0/10	£12/14/0	..	£21/14/0	£15/0/0	£5/0/0	£14/9/10

5. **Maize Products.**—Imports of cornflour into Australia are negligible. Exports of cornflour, which prior to the war were very small, increased considerably during the war years, the principal country of destination being New Zealand. In 1949–50, 1,986,901 lb., valued at £64,214, were exported, compared with an annual average of 36,761 lb., valued at £364, during the five years ended 1938–39. It should be noted that these figures include some quantities of " cornflour " made from wheat.

6. **Oversea Imports and Exports.**—Details of the imports and exports of maize for the five years ended 1949–50 compared with the five-yearly average ended 1938–39 are shown below.

MAIZE : IMPORTS AND EXPORTS, AUSTRALIA.

Year.	Imports.		Exports.		Net Exports.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
	Bushels.	£	Bushels.	£	Bushels.	£
Average, 1934–35 to 1938–39	20,609	4,209	57,432	8,571	36,823	4,362
1945–46	14	140	411	899	397	759
1946–47	389	871	1,468	6,147	1,079	5,276
1947–48	313	1,036	547,536	627,565	547,223	626,529
1948–49	601	656	126,686	105,786	126,085	105,130
1949–50	59	78	1,201,032	613,604	1,200,973	613,526

7. **World Production.**—The following table furnishes particulars of the world's acreage, production and average yield per acre of maize, according to records published by the Food and Agriculture Organization of the United Nations :—

MAIZE : WORLD PRODUCTION.

Year.	Area.	Production.	Average Yield per Acre.
	Million Acres.	Million Bushels.	Bushels.
Average, 1935–1939	216	4,725	21.88
1946	214	5,209	24.34
1947	215	4,772	22.20
1948(*a*)	208	5,929	28.50
1949(*a*)	208	5,456	26.23
1950(*a*) (*b*)	208	5,228	25.13

(*a*) Excludes U.S.S.R. (*b*) Preliminary. Subject to revision.

The United States of America is the most important maize-producing country in the world and during the three years ended 1950 the area sown to maize in that country averaged 85.3 million acres or 41.1 per cent. of the world total. During the same period production averaged 3,388 million bushels or about 61 per cent. of the world total. About 81 per cent. of the production is fed to live-stock on farms, 10 per cent. is used for human food, and approximately 4 per cent. is exported.

§ 7. Barley.

1. **Area, Production and Average Yield.**—(i) *Total Crop.* The area sown to barley for grain expanded considerably during the ten years preceding the 1939–45 War—from 383,000 acres in 1930–31 to 836,000 acres in 1939–40. This increase was followed by a decline to 443,000 acres in 1943–44, but the area sown has increased in succeeding years and reached the record level of 1,040,000 acres in 1949–50. Victoria was originally the principal barley-growing State, but since 1913–14 its place has been taken by South Australia which accounted for 65 per cent. of the Australian acreage in 1949–50. Victoria was next in importance with 25 per cent. leaving a balance of about 10 per cent. distributed among the other States. The totals here given relate to the areas harvested for grain; small areas are sown for hay, but more considerable quantities are cut for green forage. These, however, are not included in this section. The area, production and average yield per acre of barley for grain in the several States for the years 1945–46 to 1949–50 and the averages for the ten-year periods ended 1938–39 and 1949–50 are shown in the following table :—

BARLEY FOR GRAIN : AREA, PRODUCTION AND AVERAGE YIELD.

Season.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	A.C.T.	Australia.
AREA ('000 ACRES).								
Average, 1929–30 to 1938–39	11	107	8	331	31	7	..	495
1945–46 ..	29	134	21	442	66	7	..	699
1946–47 ..	27	138	9	502	66	6	..	748
1947–48 ..	23	165	17	562	63	9	..	839
1948–49 ..	19	196	28	698	64	7	..	1,012
1949–50 ..	13	236	25	694	68	4	..	1,040
Average, 1940–41 to 1949–50 ..	21	155	15	477	65	6	..	739
PRODUCTION ('000 BUSHELS). (*a*)								
Average, 1929–30 to 1938–39 ..	173	1,976	132	5,714	371	186	1	8 553
1945–46 ..	496	1,744	520	7,566	666	123	2	11,117
1946–47 ..	107	2,322	68	8,424	519	156	..	11,596
1947–48 ..	519	3,577	433	15,363	745	219	..	20,856
1948–49 ..	322	3,548	622	12,104	981	208	..	17,785
1949–50 ..	265	4,876	578	12,725	968	131	..	19,543
Average, 1940–41 to 1949–50 ..	291	2,476	320	8,693	770	142	1	12,693
AVERAGE YIELD PER ACRE (BUSHELS).(*a*)								
Average, 1929–30 to 1938–39 ..	16.62	18.44	16.67	17.29	11.89	25.21	18.88	17.29
1945–46 ..	17.10	13.00	24.70	17.12	10.03	18.28	21.42	15.90
1946–47 ..	4.01	16.82	7.52	16.78	7.88	24.88	..	15.50
1947–48 ..	22.13	21.78	25.18	27.32	11.79	26.79	19.50	24.87
1948–49 ..	16.91	18.12	22.49	17.35	15.29	28.39	..	17.58
1949–50 ..	20.64	20.65	23.06	18.34	14.24	30.12	..	18.79
Average, 1940–41 to 1949–50 ..	13.61	15.97	21.15	18.24	11.88	25.61	13.58	17.18

(*a*) 50 lb. per bushel.

(ii) *Malting (2–row) and Other (6–row) Barley.* (*a*) *Season* 1949–50. In the following table details of the area sown to barley of the 2-row or malting variety and 6–row or feed variety, and production therefrom for the season 1949–50 are given by States :—

BARLEY, MALTING (2-ROW) AND OTHER (6-ROW): AREA AND PRODUCTION, 1949–50.

Particulars.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	A.C.T.	Aust.
			Area ('000 Acres.)					
Malting (2-row) ..	9	212	17	651	34	4	..	927
Other (6-row) ..	4	24	8	43	34	..	..	113
Total ..	13	236	25	694	68	4	..	1,040
			Production ('000 Bushels).					
Malting (2-row) ..	203	4,406	390	11,976	475	119	..	17,569
Other (6-row) ..	62	470	188	750	493	11	..	1,974
Total ..	265	4,876	578	12,726	968	130	..	19,543

Taking Australia as a whole, about 89 per cent. of the area of barley for grain in 1949–50 was sown with malting or 2–row barley while the remainder consisted of 6–row, or feed varieties. The proportion, however, varied considerably in the several States. The disposal of barley during the season 1949–50 was as follows: malt works, 5,293,979 bushels; flour and other grain mills, 264,395 bushels; distilleries, 194,812 bushels; exports, 5,351,397 bushels; leaving a balance of 8,438,232 bushels for feed, seed and other purposes.

(*b*) *Area, Production and Average Yield.* The following table sets out the acreage and production of malting and other barley in Australia during the seasons 1945–46 to 1949–50 and the averages for the ten-year periods ended 1938–39 and 1949–50.

BARLEY, MALTING AND OTHER: AREA AND PRODUCTION, AUSTRALIA.

Season.	Area. ('000 Acres.)			Production. ('000 Bushels.)			Average Yield per Acre. (Bush.)		
	Malting (2-row).	Other (6-row).	Total.	Malting (2-row).	Other (6-row).	Total.	Malting (2-row).	Other (6-row).	Total.
Average, 1929–30 to 1938–39 ..	428	67	495	7,480	1,073	8,553	17.49	16.03	17.29
1945–46 ..	593	106	699	9,581	1,536	11,117	16.15	14.52	15.90
1946–47 ..	663	85	748	10,558	1,038	11,596	15.92	12.27	15.50
1947–48 ..	745	94	839	18,936	1,920	20,856	25.43	20.46	24.87
1948–49 ..	899	113	1,012	15,930	1,855	17,785	17.72	16.46	17.58
1949–50 ..	927	113	1,040	17,569	1,974	19,543	18.95	17.51	18.79
Average, 1940–41 to 1949–50 ..	634	105	739	11,184	1,509	12,693	17.64	14.37	17.18

During the past ten seasons the average area of barley of the malting, or 2-row class, was six times the corresponding figures for barley of the 6-row, or feed class. The average yield per acre for the last ten-yearly period for malting barley was 23 per cent. higher than that for 6-row barley.

2. **Australian Barley Board.**—Following the outbreak of war in 1939, the Australian Barley Board, representative of the industry, was formed, and the Commonwealth Government acceded to its request to acquire the entire 1939–40 barley crop, which was placed under the control of the Board. A pool was established from which proceeds were distributed with appropriate margins for different grades of barley.

The Board was responsible for the marketing and storage of barley, and, like the Australian Wheat Board, appointed licensed receivers to receive grain on its behalf and to act as agents for all local and oversea sales.

Following the decision of the Commonwealth Government not to acquire barley in smaller producing States after 1941–42, the Governments of Western Australia and Queensland established State Barley Boards to control marketing in these States.

Particulars of the barley acquired and sold, and of advances made to growers by the Australian Barley Board in respect of the 1945–46 to 1947–48 crops are given in the following table. The Commonwealth Government did not acquire barley after the 1947–48 crop, and the Victorian and South Australian Governments formed a joint board under the same name as the former Commonwealth board to market the 1948–49 and subsequent crops of the two States. Details of these acquisitions are also shown in the table below.

AUSTRALIAN BARLEY BOARD: BARLEY ACQUIRED, SOLD, ETC., TO 30th SEPTEMBER, 1951.

Pool.	Quantity Acquired.	Quantity Sold.(*a*)	Total Advances made per Bushel on 2-row No. 1 Grade excluding freight.	Total Payments to Growers.
	'000. bushels.	'000. bushels.	*s.* *d.*	£
No. 7 (1945–46 Crop)	6,716	6,782	6 0.17	1,962,049
„ 8 (1946–47 „)	8,543	8,572	8 4.625	3,497,956
„ 9 (1947–48 „)	17,228	17,302	(*b*) 15 1.7	12,737,512
„ 10 (1948–49 „)	13,986	14,087	(*b*) 7 11.9	5,377,137
„ 11 (1949–50 „)	16,250	16,336	(*b*) 10 2.2	7,905,902
„ 12 (1950–51 „)(*c*)	19,973	18,065	(*b*) 8 6	*d* 8,056,306

(*a*) Includes surplus in out-turn. (*b*) Paid to growers in the northern part of South Australia. Growers in the south-east of South Australia and Victoria received an additional 2d. per bushel. (*c*) Subject to revision. (*d*) To 30th September, 1951.

3. **Prices.**—The average prices in the Melbourne market during each of the years 1938–39 and 1945–46 to 1949–50 are given in the following table :—

BARLEY: AVERAGE MELBOURNE PRICES PER BUSHEL.

(s. d.)

Particulars.	1938–39.	1945–46.	1946–47.	1947–48.	1948–49.	1949–50.
Malting barley ..	3 5¾	6 1	6 1	6 5½	6 11¾	7 3½
Cape barley ..	2 11½	5 4	5 4	5 8½	6 3¾	6 6½

4. **Value of Barley Crop.**—The estimated values of the barley crop for the seasons 1948–49 and 1949–50 and the value per acre are shown in the following table :—

BARLEY FOR GRAIN: VALUE OF CROP(*a*), 1948–49 AND 1949–50.

Particulars.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	A.C.T.	Australia.
1948–49—								
Aggregate value £	119,630	1,366,216	302,496	5,120,862	419,531	65,620	..	7,394,355
Value per acre	£6/5/9	£6/19/7	£10/18/7	£7/6/9	£6/10/8	£8/19/1	..	£7/6/2
1949–50—								
Aggregate value £	102,720	2,526,496	303,020	7,262,050	466,733	48,020	..	10,709,039
Value per acre	£8/0/4	£10/14/0	£12/1/8	£10/9/4	£6/17/4	£11/1/0	..	£10/5/11

(*a*) Excludes the value of straw.

5. **Imports and Exports.**—Australian exports of barley during the five years ended 1949–50 averaged 6,517,000 bushels, South Australia being the principal exporting State. Particulars of the Australian oversea imports and exports for the years 1945–46 to 1949–50 together with the average for the five years ended 1938–39 are shown in the following table :—

BARLEY : IMPORTS AND EXPORTS, AUSTRALIA.

Year.	Imports.		Exports.		Net Exports.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
	'000 Bushels.	£	'000 Bushels.	£	'000 Bushels.	£
Average, 1934–35 to 1938–39	1,483	261,730	3,279	483,246	1,796	221,516
1945–46	953	219,071	702	359,741	−251	140,670
1946–47	..	..	2,256	1,636,020	2,256	1,636,020
1947–48	..	1	8,050	8,134,000	8,050	8,133,999
1948–49	..	30	10,876	6,864,173	10,876	6,864,143
1949–50	..	4	10,703	6,433,051	10,703	6,433,047

NOTE.—Minus sign (−) denotes net imports.

In addition to barley grain, there is also an export of Australian pearl and scotch barley, the total for 1949–50 amounting to 1,882,772 lb., valued at £37,223, and consigned mainly to Ceylon, Singapore and Malaya.

6. **Malt.**—(i) *Production.* The production of malt in Australia is sufficient to meet local requirements and to provide a margin for export as indicated below. Details of the quantity of grain used and the production of barley and other malt are given in the following table.

MALT : GRAIN USED AND MALT PRODUCED, AUSTRALIA.

Year.	Barley Malt.		Wheaten and Oaten Malt.	
	Grain used.	Malt produced.	Grain used.	Malt produced.
	Bushels.	Bushels.(*a*)	Bushels.	Bushels.(*a*)
1938–39	3,729,730	3,620,909	(*b*)	111,728
1945–46	3,734,780	3,596,004	241,992	229,811
1946–47	4,669,729	4,563,920	173,772	158,387
1947–48	4,976,615	4,879,145	186,772	170,877
1948–49	5,048,387	4,989,371	170,615	160,766
1949–50	5,293,979	5,437,539	186,092	174,872

(*a*) 40 lb. per bushel. (*b*) Not available.

(ii) *Imports and Exports.* The surplus production of malt in Australia, after meeting local requirements, is shipped chiefly to the Far East and New Zealand. Details of imports and exports for the years 1945–46 to 1949–50, together with the average for the five years ended 1938–39, are given in the next table :—

MALT : IMPORTS AND EXPORTS, AUSTRALIA.

Year.	Imports.		Exports.		Net Exports.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
	Bushels.	£	Bushels.	£	Bushels.	£
Average, 1934–35 to 1938–39	248	133	108,798	37,780	108,550	37,647
1945–46 ..	..	..	15,040	6,590	15,040	6,590
1946–47 ..	..	..	20,673	8,023	20,673	8,023
1947–48 ..	..	..	12,920	14,159	12,920	14,159
1948–49 ..	14,002	16,508	..	..	−14,002	− 16,508
1949–50 ..	98,132	110,295	2,672	2,654	−95,460	−107,641

NOTE.—Minus sign (—) denotes net imports.

7. **World Production.**—In comparison with the barley production of other countries, that of Australia is extremely small. World production in 1950 is placed at 2,113 million bushels, the main producers being China and the United States of America. Australian production in that year was less than one per cent. of the world total.

The following table shows the latest available details of the world's acreage of barley, together with the production and average yield per acre, according to the results compiled by the Food and Agriculture Organization of the United Nations :—

BARLEY : WORLD PRODUCTION.

Period.	Area.	Production.	Average Yield per Acre.
	Million Acres.	Million Bushels.	Bushels.
Average, 1935–1939	114.2	2,338	20.47
1946	103.0	2,016	19.57
1947	110.7	2,122	19.17
1948(*a*)	92.4	2,044	22.12
1949(*a*)	93.2	1,957	21.00
1950(*a*) (*b*)	96.4	2,113	21.92

(*a*) Excludes U.S.S.R. (*b*) Preliminary. Subject to revision.

§ 8. Rice.

Rice growing is almost entirely concentrated in Asia and the extent to which this crop is grown in other countries is relatively small. In Australia experimental rice cultivation was carried on at the Yanco Experimental Farm in New South Wales for a number of years before 1924–25, but it was not until that year that an attempt was made to grow the crop on a commercial basis, 16,240 bushels being produced from 153 acres, or an average of 106 bushels per acre. Favoured by tariff protection and high average yields, the development of rice culture in the Murrumbidgee Irrigation Area made rapid progress, and production soon equalled Australian requirements and later provided a margin for export.

The area which growers may plant is subject to control. Each year representatives of the Rice Marketing Board, rice growers, the Department of Agriculture and the Water Conservation and Irrigation Commission of New South Wales meet to decide the maximum area which growers may plant in the following season, the extent of any expansion being determined by the limits imposed by the quantity of water available.

For the five years ended 1938–39 the area sown to rice in the Murrumbidgee Irrigation Area averaged 22,800 acres. No marked expansion occurred until after Japan's entry into the war in 1941. The area was increased to 34,300 acres in 1942–43 and to 36,500 acres in 1943–44. This expansion was not sufficient to meet the war-time demand and new areas in the Wakool and Benerembah Irrigation Districts of New South Wales were developed, bringing the total area for the State and for Australia to 40,690 acres in 1943–44. Owing to water shortage the area sown in 1944–45 fell to 24,596 acres, but rose to 28,372 acres in 1945–46 and to 31,995 acres in 1946–47. A decline to 26,208 acres was recorded in 1947–48, but the area expanded rapidly in 1948–49 to 32,689 acres, and to 37,540 acres in 1949–50.

The production of paddy rice reached its highest level in 1943–44 with more than 4 million bushels or an average yield of just under 100 bushels per acre. In 1944–45 it dropped to nearly 1.7 million bushels or 68.8 bushels per acre, owing to water shortage arising from severe drought conditions. In 1949–50 production amounted to 3.8 million bushels or an average of 100.78 bushels per acre.

Prior to 1938–39 the greater part of Australia's export of rice was consigned to the United Kingdom, but, because of shortages in Pacific areas arising from war damage in south-east Asia, exports from Australia have been diverted mainly to the islands in this region.

Details relating to area, production, and trade for the years 1945–46 to 1949–50 compared with the averages for the years 1934–35 to 1938–39 are shown in the following table :—

RICE : AREA, PRODUCTION AND TRADE, AUSTRALIA.(*a*)

Year.	No. of Growers.	Area.	Production (Paddy Rice). Quantity.	Production (Paddy Rice). Gross Value. (*b*)	Average Yield (Paddy) per acre.	Imports. Uncleaned.	Imports. Cleaned.	Exports. Uncleaned.	Exports. Cleaned.
		Acres.	'000 Bushels.*c*	£'000.	Bushels.*c*	Centals.	Centals.	Centals.	Centals.
Average, 1934–35 to 1938–39 ..	(*d*) 313	22,823	2,274	450	99.66	2,124	38,272	9,357	271,851
1945–46 ..	329	28,372	2,735	672	96.40	..	420	344,874	222,485
1946–47 ..	350	31,995	2,978	892	93.08	13	6	28,419	530,985
1947–48 ..	349	26,208	2,676	950	102.12	..	5	4,763	622,208
1948–49 ..	404	32,689	2,739	1,032	83.79	..	549	8.658	610,497
1949–50 ..	444	37,540	3,783	1,653	100.78	..	6,685	225	597,759

(*a*) Rice growing in Australia has been confined to New South Wales. (*b*) Excludes the value of straw. (*c*) 42 lb. per bushel. (*d*) 1938–39 figure, previous years not collected.

§ 9. Sorghum for Grain.

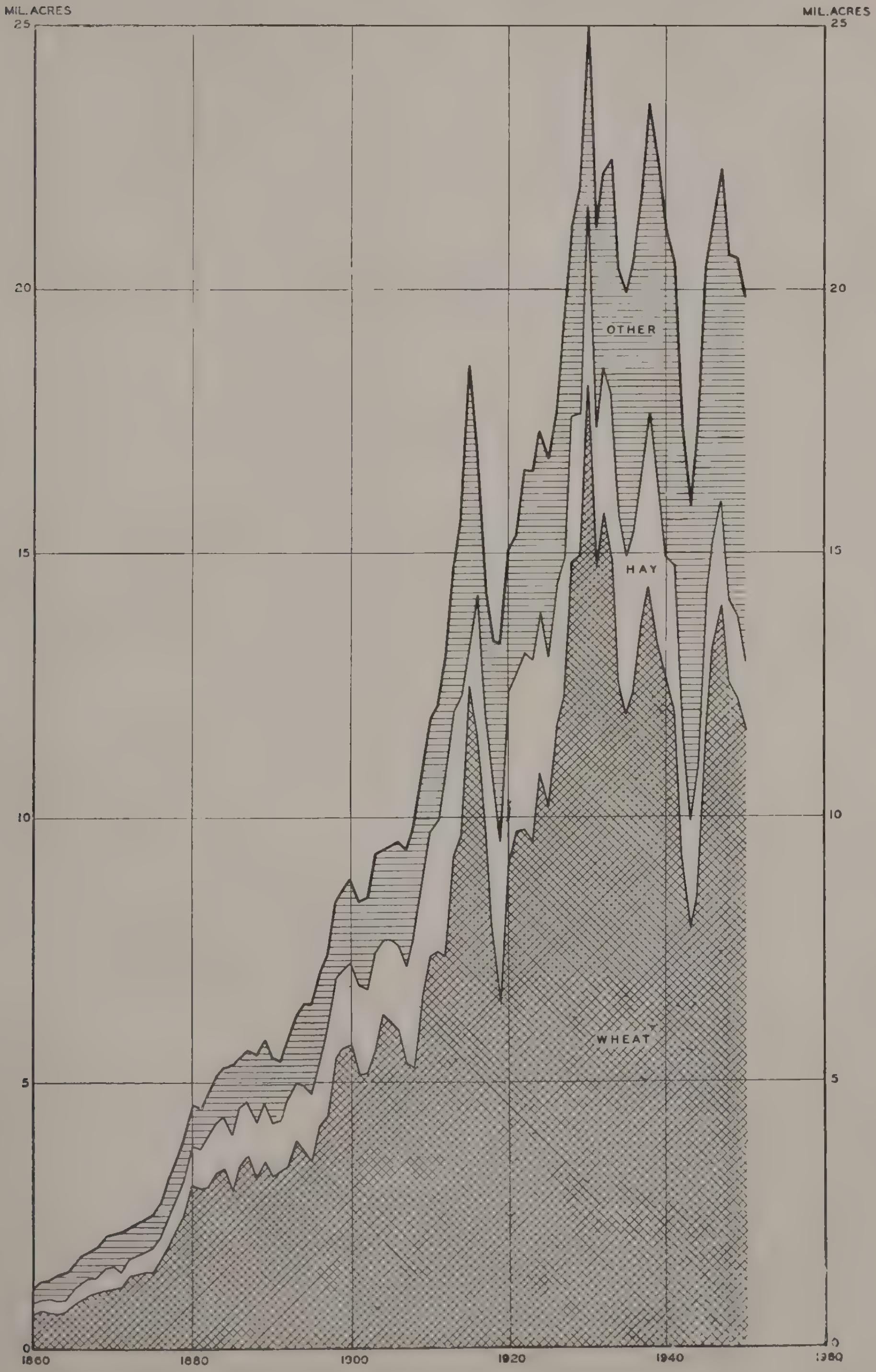
1. **Area, Production and Average Yield.**—The growing of sorghum for grain on an extensive scale is a recent development in Australia. No details of the area and production of this cereal are available prior to 1939–40, but the output was of little importance. The climatic conditions of Queensland and northern New South Wales are particularly suited for the growing of sorghum and the development so far has been restricted to these areas, but more particularly to Queensland which accounts for the greater portion of the area sown. The grain produced is fed to live-stock and is becoming an important source of supply for supplementing other coarse grains for the feeding of live-stock. Other sorghums are grown in Australia mainly as green fodder, hay and for the production of brush for broom manufacture. Details of these are included in § 14 and § 19 hereinafter. Particulars of the area and production of sorghum grown for grain are given in the following table.

GRAIN SORGHUM : AREA, PRODUCTION AND AVERAGE YIELD, AUSTRALIA.

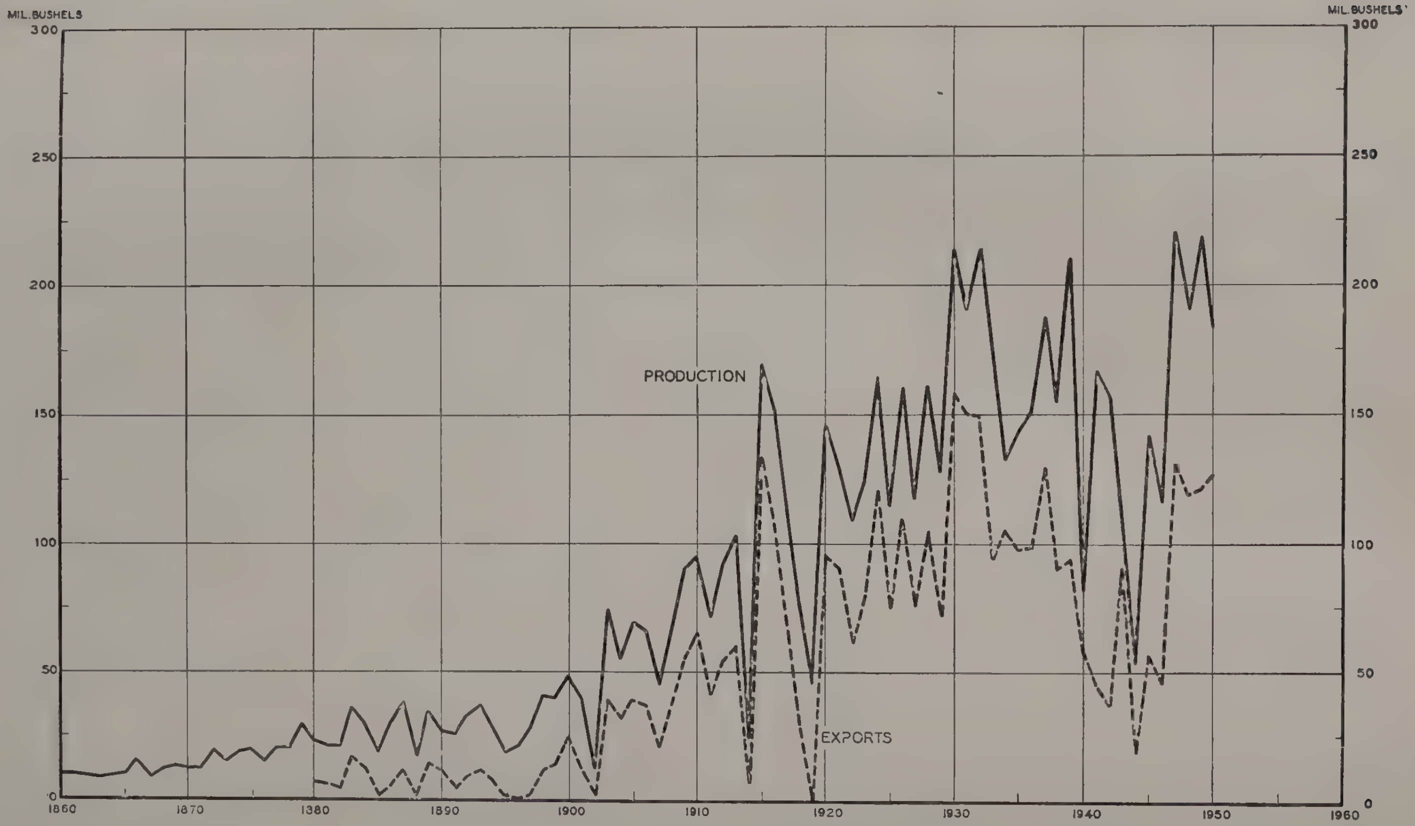
Year.	Area. N.S.W.	Area. Q'land.	Area. Total. (*b*)	Production.(*a*) N.S.W.	Production.(*a*) Q'land.	Production.(*a*) Total. (*b*)	Average Yield per Acre.(*a*) N.S.W.	Average Yield per Acre.(*a*) Q'land.	Average Yield per Acre.(*a*) Total. (*b*)
	Acres.	Acres.	Acres.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.
1939–40 ..	(*c*)	4,397	(*d*) 4,397	(*c*)	57,936	(*d*) 57,936	(*c*)	13.17	*d* 13.17
1945–46 ..	6,248	49,451	55,699	100,182	918,780	1,018,962	16.03	18.58	18.29
1946–47 ..	51,868	68,775	120,644	629,097	1,295,442	1,924,539	12.13	18.84	15.95
1947–48 ..	24.680	116,079	140,769	467,412	3,335,322	3,802,784	18.94	28.73	27.01
1948–49 ..	4,732	48,011	52,745	83,244	899,136	982,389	17.59	18.73	18.63
1949–50 ..	3,575	99,362	102,937	67,809	2,157,717	2,225,526	18.97	21.72	21.62

(*a*) 60 lb. per bushel. (*b*) Includes small areas sown and quantities produced in other States. (*c*) Not available. (*d*) Queensland only.

AREA OF CROPS: AUSTRALIA, 1860-61 TO 1950-51



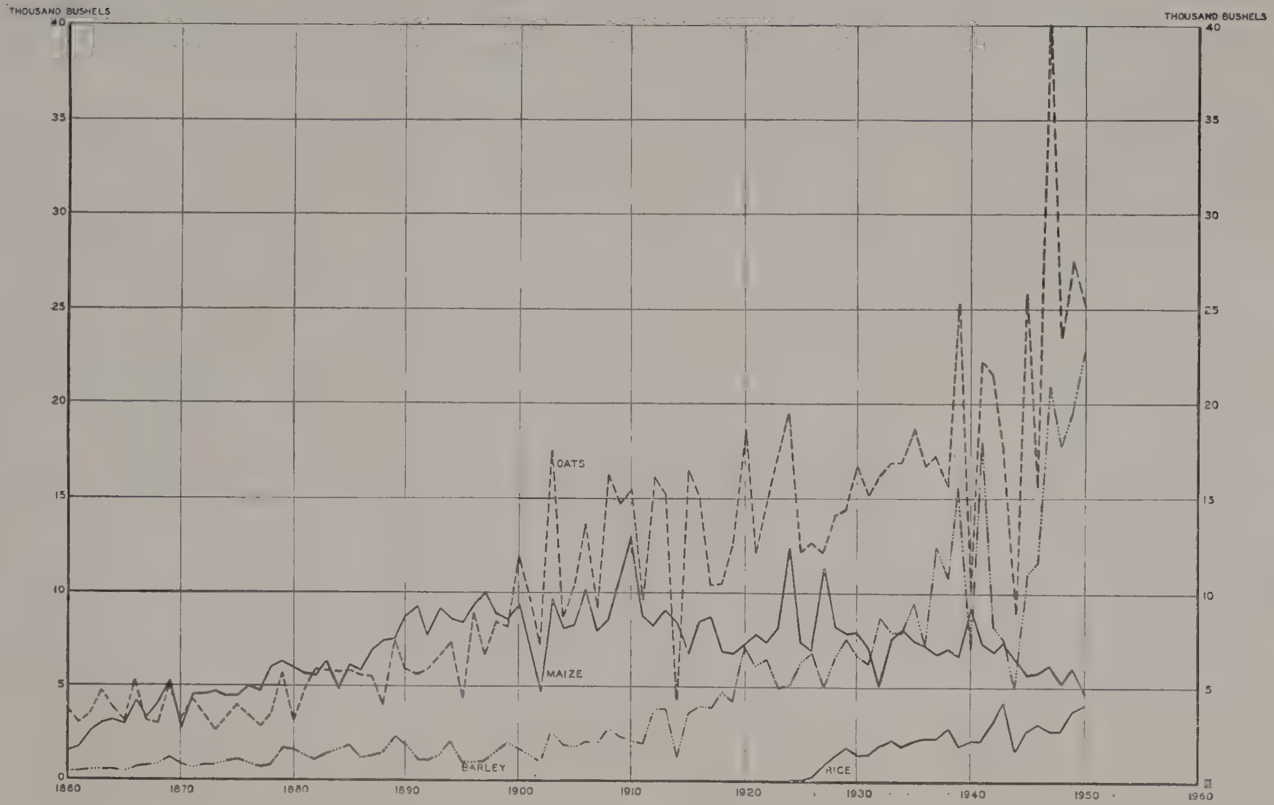
WHEAT PRODUCTION AND EXPORTS: AUSTRALIA, 1860-61 TO 1950-51



Note.—The export figures for the years 1915–16 to 1920–21 do not represent the surplus available for export in each of these years because of the dislocation of shipping due to the 1914–1918 War. For these years the quantity consumed in Australia has been averaged and the balance taken as exports.

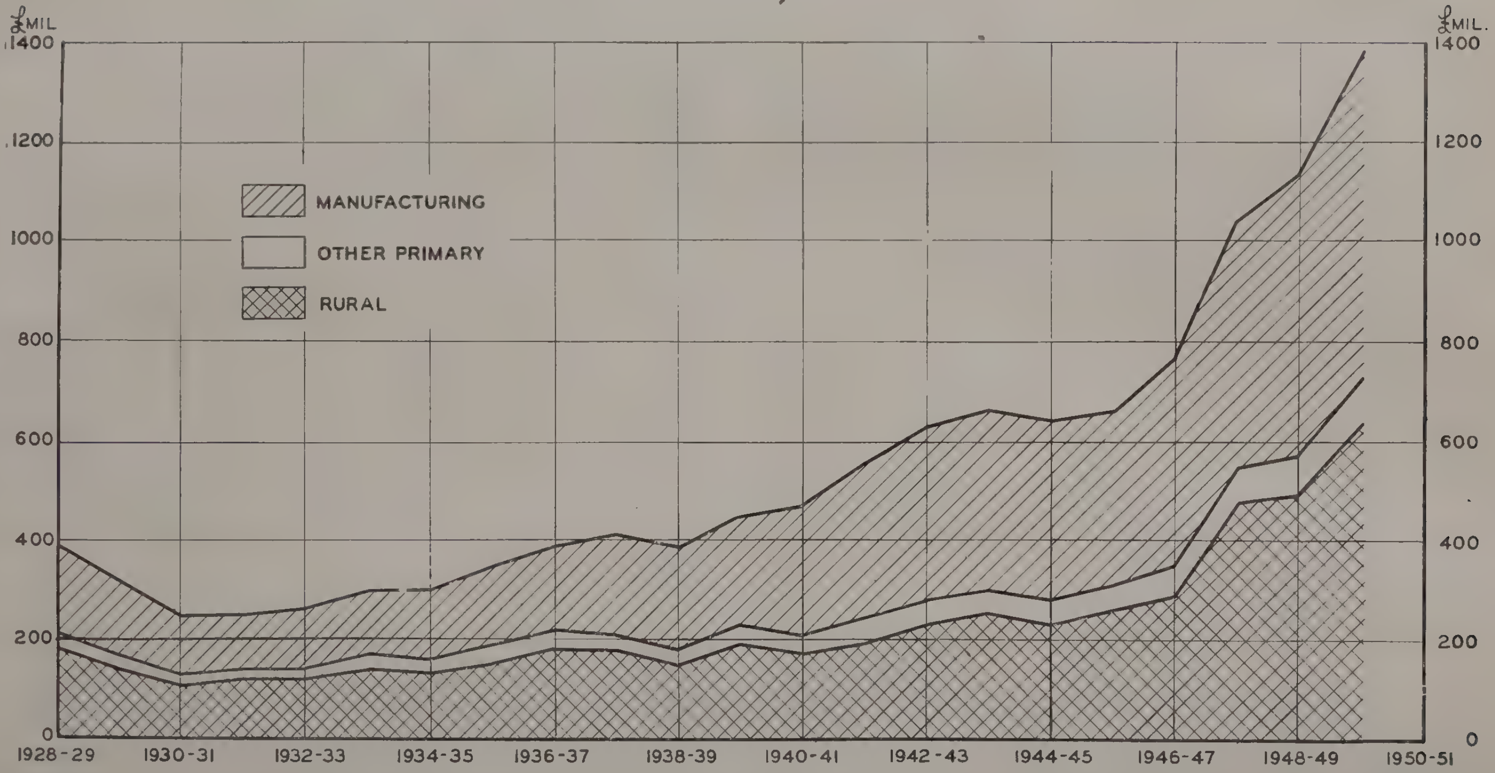
PRODUCTION OF OATS, BARLEY, MAIZE AND RICE : AUSTRALIA

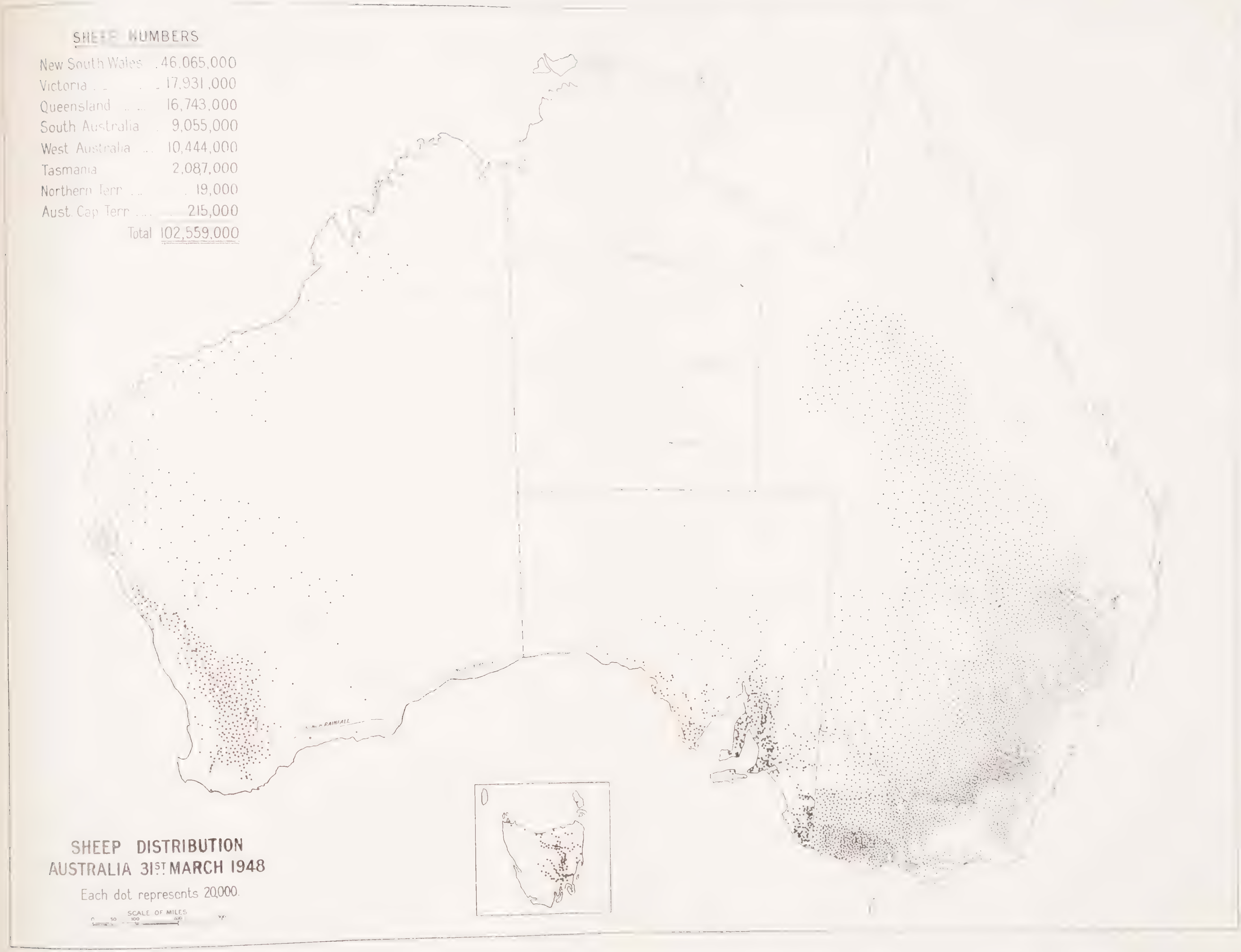
1860-61 TO 1950-51



NET VALUE OF PRODUCTION : AUSTRALIA

ALL RECORDED INDUSTRIES, 1928-29 TO 1949-50



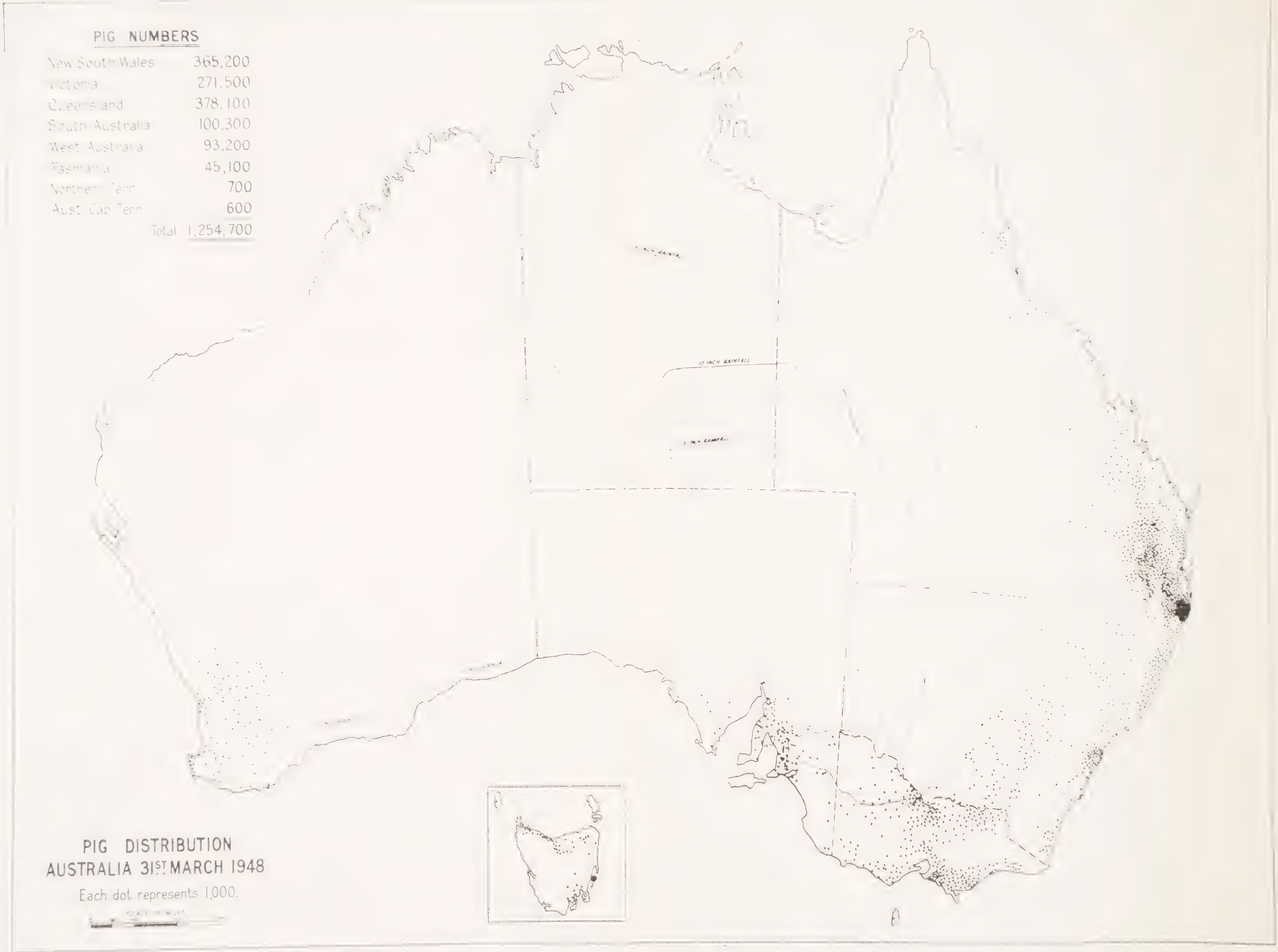

RAINFALL
SCALE OF MILES
0
50
100
200

SHEEP NUMBERS

New South Wales	46,065,000
Victoria	17,931,000
Queensland	16,743,000
South Australia	9,055,000
West Australia	10,444,000
Tasmania	2,087,000
Northern Terr	19,000
Aust. Cap. Terr	215,000
Total	102,559,000

SHEEP DISTRIBUTION
AUSTRALIA 31ST MARCH 1948

Each dot represents 20,000.


10 INCH RAINFALL
5 INCH RAINFALL
SCALE OF MILES

PIG NUMBERS

New South Wales	365,200
Victoria	271,500
Queensland	378,100
South Australia	100,300
West Australia	93,200
Tasmania	45,100
Northern Terr.	700
Aust. Cap. Terr.	600
Total	1,254,700

PIG DISTRIBUTION
AUSTRALIA 31ST MARCH 1948

Each dot represents 1,000.

2. **Queensland-British Food Corporation Project.**—Early in 1948 an agreement was entered into between the Queensland Government and the Overseas Food Corporation of the United Kingdom Government to develop selected areas of Central Western Queensland for the growing of grain sorghum for pig-raising in Queensland and/or for export to the United Kingdom, and for sunflower and possibly other oilseed production. The Queensland-British Food Corporation was established in April, 1948 with head-quarters in Brisbane, some 300,000 acres of land being initially acquired for the project. The land acquired comprises the pastoral property known as "Peak Downs" and other similar properties in the Central Western District of the State and is estimated to embrace about 180,000 acres of arable land. The first year's operations of the Corporation consisted of developmental work, the seeding of 29,286 acres of grain sorghum, and the sowing of small areas with sunflower and other experimental crops on the "Peak Downs" property for 1949 cropping. During the 1950, 1951 and 1952 seasons the Corporation continued operations on sorghum and sunflower seed production, while two piggeries were established during the second half of 1950. In addition, beef cattle were run on certain areas suitable only for grazing. However, because of losses incurred, the United Kingdom and Queensland Governments decided, early in 1953, to abandon the project. Although the scheme has resulted in financial loss, the activities of the Corporation have done much to indicate ways by which grain sorghum production and beef cattle husbandry can be used as a basis for closer settlement of the great tracts of brigalow country in Queensland.

§ 10. Other Grain and Pulse Crops.

In addition to the grain crops already specified, the principal other grain and pulse crops grown in Australia are navy beans, blue peas and rye.

The recorded areas of crops of blue peas and navy beans for the season 1949–50 were 7,813 acres and 2,177 acres respectively, giving yields of 4,029 tons and 779 tons or averages of 0.52 tons and 0.36 tons respectively per acre. Details of these crops are incomplete as New South Wales did not collect particulars of area or yield of navy beans or blue peas.

The total area of rye in Australia during the season 1949–50 was 63,160 acres, yielding 410,536 bushels, or an average of 6.50 bushels per acre, as compared with the average of 5.74 bushels for the last ten seasons. Of the total area sown to rye in 1949–50, about 62.6 per cent. was in South Australia, 26.4 per cent. in Victoria, and 8.3 per cent. in Western Australia.

§ 11. Potatoes.

1. **Area, Production and Average Yield.**—Victoria possesses peculiar advantages for the growing of potatoes, as the rainfall is generally satisfactory and the climate is unfavorable to the spread of Irish blight; consequently, the crop is widely grown. The principal areas of that State are the central highlands, and the south-western and Gippsland districts. Tasmania comes next in order of acreage sown, although the production exceeded that of Victoria in some of the war years. New South Wales occupies third place in acreage and production. The area for these three States accounted for 81 per cent. of the total for Australia in 1949–50.

The area sown, production and average yield per acre of potatoes in each State during the years 1945–46 to 1949–50 and the averages for the ten-year periods ended 1938–39 and 1949–50 are shown hereunder :—

POTATOES : AREA, PRODUCTION AND AVERAGE YIELD.

Season.	N.S.W.	Vic.	Q'land.	S. Aust.	W.Aust.	Tas.	A.C.T.	Aust.
				AREA (ACRES).				
Average, 1929–30 to 1938–39	19,199	54,658	11,039	5,042	4,953	34,684	30	129,605
1945–46	22,865	63,000	15,216	8.854	9,781	56,245	118	176,079
1946–47	21,309	56,400	10,536	6,191	6,961	43,227	105	144,729
1947–48	21,911	59,400	10,664	6,202	6,955	40,382	115	145,629
1948–49	18,101	45,785	11,184	5,860	6,344	32,319	89	119,682
1949–50	23,369	50,651	11,624	7,245	6,895	34,110	108	134,002
Average, 1940–41 to 1949–50	23,243	55,825	12,263	7,273	7,320	45,626	102	151,652
				PRODUCTION (TONS).				
Average, 1929–30 to 1938–39	44,122	150,238	18,100	20,202	23,410	94,500	63	350,635
1945–46	61,768	230,749	33,605	35,097	47,672	236,140	575	645,606
1946–47	61,303	223,782	22,599	29,212	36,042	170,621	518	544,077
1947–48	65,535	184,882	29,299	34,181	40,608	142,746	716	497,967
1948–49	61,265	166,105	27,511	33,054	39,516	131,800	561	459,812
1949–50	69,395	167,881	30,681	40,984	39,459	122,000	637	471,037
Average, 1940–41 to 1949–50	61,926	202,616	26,846	35,526	37,410	172,616	548	537,488
				AVERAGE YIELD PER ACRE (TONS).				
Average, 1929–30 to 1938–39	2.30	2.75	1.64	2.50	4.73	2.72	2.09	2.71
1945–46	2.70	3.66	2.21	3.96	4.87	4.20	4.87	3.67
1946–47	2.88	3.97	2.14	4.72	5.18	3.95	4.93	3.76
1947–48	2.99	3.11	2.75	5.51	5.84	3.53	6.23	3.42
1948–49	3.38	3.63	2.46	5.64	6.23	4.08	6.30	3.84
1949–50	2.97	3.31	2.64	5.66	5.72	3.58	5.90	3.52
Average, 1940–41 to 1949–50	2.66	3.63	2.19	4.88	5.11	3.78	5.36	3.54

The area sown to potatoes averaged 129,605 acres during the ten years ended 1938–39 and rose to 151,652 acres for the decennium ended 1949–50. After the outbreak of war in the Pacific in December, 1941, the area sown to potatoes rose rapidly and reached a peak of 241,803 acres in 1944–45. This was followed by a sharp fall to 176,079 acres in 1945–46 and to 144,729 acres in 1946–47. The acreage recorded in 1947–48 was slightly higher at 145,629 acres but this was followed by a further sharp decline to 119,682 acres in 1948–49. In 1949–50 the acreage increased to 134,002 acres.

Compared with the average yield per acre obtained in other countries, that returned for Australia is low ; the production in New Zealand, for example, in 1948–49 averaged 6.08 tons per acre from an area of about 20,000 acres, as compared with 3.84 tons per acre in Australia from 119,682 acres.

2. **Gross Value of Potato Crop.**—The estimated gross value of the potato crop of each State for the seasons 1948–49 and 1949–50 is shown in the following table :—

POTATOES : VALUE OF CROP, 1948–49 AND 1949–50.

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	A.C.T.	Australia.
1948–49—								
Aggregate value £	1,281,970	2,960,268	502,076	561,918	580,062	2,227,420	11,725	8,125,439
Value per acre ..	£70/16/6	£64/13/2	£44/17/10	£95/17/10	£91/8/8	£68/18/5	£131/14/10	£67/17/10
1949–50—								
Aggregate value £	1,766,390	3,259,460	690,322	774,598	755,895	1,878,800	16,238	9,141,703
Value per acre ..	£75/11/9	£64/7/0	£59/7/9	£106/18/4	£109/12/7	£55/1/7	£150/7/0	£68/4/5

3. **Consumption.**—The annual consumption of potatoes in Australia during each of the three years 1947–48 to 1949–50 amounted to 450,251 tons, 376,898 tons and 391,800 tons respectively, or 132.0 lb., 108.3 lb. and 109.0 lb. per head of population respectively. These figures exclude the quantities used for seed, which averaged about 60,000 tons annually over this period. Consumption during the three years ended 1938–39 averaged 318,500 tons (103.8 lb. per head of population) excluding 37,000 tons for seed. New South Wales, Queensland and, in some seasons, South Australia do not produce the quantities necessary for their requirements and must import from Tasmania and Victoria which have a surplus.

4. **Australian Potato Committee.**—Full details of the war-time potato marketing scheme operated under the National Security (Potatoes) Regulations by the Australian Potato Committee were shown on p. 929 of Official Year Book No. 37. The Committee ceased to function as from the close of the 1947–48 season.

5. **Post-war Marketing.**—Commonwealth control of potato marketing under war-time legislation ceased at the end of 1948 with the completion of sales of the 1947–48 crop.

The 1948–49 crops have been marketed by Boards established in the respective States under State legislation. Although the State Boards operate separately they have a working arrangement for the interstate marketing of potato crops.

6. **Imports and Exports.**—Prior to the 1939–45 War, small quantities of potatoes were exported, principally to the Pacific Islands and Papua. Since the war, an expanded export trade has been developed, principally with Eastern countries, including Singapore, Ceylon, Hong Kong and Indo-China. Details showing the trade for the years 1945–46 to 1949–50 and the period 1934–35 to 1938–39 are given in the following table :—

POTATOES : IMPORTS AND EXPORTS, AUSTRALIA.

Year.	Imports.		Exports.		Net Exports.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
	Tons.	£	Tons.	£	Tons.	£
Average, 1934–35 to 1938–39	5	79	18,838	16,639	18,833	16,560
1945–46	..	21	44,645	861,023	44,645	861,002
1946–47	..	3	25,852	504,658	25,852	504,655
1947–48	..	1	30,008	622,379	30,008	622,378
1948–49	..	..	15,074	243,540	15,074	243,540
1949–50	..	19	15,183	340,747	15,183	340,728

§ 12. Onions.

1. **Area, Production and Average Yield.**—Australia's supply of onions comes chiefly from Victoria, which accounted for 54.4 per cent. of the total area and 53.3 per cent. of the quantity produced in 1949–50. Queensland came next with nearly 31.5 per cent. of the area and 27.5 per cent. of the production, leaving a balance of about 14.1 per cent. of area and 19.2 per cent. of production distributed among the remaining four States. The Victorian crop consists almost entirely of brown onions of good keeping qualities, and the bulk of the crop is grown in a small section of the Western Division of the State, where soil conditions have been found to be particularly suitable for onion growing on a commercial scale. Details of the area, production and average yield per acre are given in the following table for the years 1945–46 to 1949–50 together with averages for the ten-year periods ended 1938–39 and 1949–50.

ONIONS : AREA, PRODUCTION AND AVERAGE YIELD.

Year.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	A.C.T.	Aust.
				AREA (ACRES).				
Average, 1929–30 to 1938–39 ..	124	6,159	840	450	109	5	3	7,690
1945–46	747	8,170	2,537	511	383	52	8	12,408
1946–47	408	6,460	1,497	521	431	27	3	9,347
1947–48	568	6,722	2,378	583	475	19	6	10,751
1948–49	322	5,554	2,828	498	499	31	4	9,736
1949–50	225	4,093	2,371	435	371	28	3	7,526
Average, 1940–41 to 1949–50 ..	604	6,030	1,961	551	383	49	5	9,583
				PRODUCTION (TONS).				
Average, 1929–30 to 1938–39 ..	354	35,431	2,548	3,414	814	20	11	42,592
1945–46	2,939	46,338	9,939	4,779	2,720	54	24	66,793
1946–47	1,710	28,244	6,089	4,774	3,562	203	15	44,597
1947–48	2,158	61,540	12,843	5,350	4,000	75	31	85,997
1948–49	1,242	33,684	12,535	4,971	3,930	180	27	56,569
1949–50	770	25,436	13,137	4,607	3,611	130	22	47,713
Average, 1940–41 to 1949–50 ..	1,931	35,545	8,254	4,819	2,938	157	24	53,668
				AVERAGE YIELD PER ACRE (TONS).				
Average, 1929–30 to 1938–39 ..	2.85	5.75	3.03	7.59	7.47	4.00	3.67	5.54
1945–46	3.93	5.67	3.92	9.35	7.10	1.04	3.00	5.38
1946–47	4.19	4.37	4.07	9.16	8.26	7.52	5.00	4.77
1947–48	3.80	9.16	5.40	9.18	8.42	3.95	5.17	8.00
1948–49	3.86	6.06	4.43	9.98	7.88	5.81	6.75	5.81
1949–50	3.42	6.21	5.54	10.59	9.73	4.64	7.33	6.34
Average, 1940–41 to 1949–50 ..	3.20	5.89	4.21	8.75	7.67	3.20	4.86	5.60

Details of the area and production of fresh vegetables other than potatoes and onions are given in § 18.

2. **Gross Value of Onion Crop.**—The gross value of the onion crop is shown in the following table for the years 1948–49 and 1949–50.

ONIONS : VALUE OF CROP, 1948–49 AND 1949–50.

Particulars.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	A.C.T.	Aust.
1948–49—								
Aggregate value £	23,370	533,439	145,965	82,850	72,438	4,270	508	862,840
Value per acre ..	£72/11/7	£96/1/0	£44/6/6	£166/7/4	£145/3/4	£137/14/11	£127/0/0	£88/12/6
1949–50—								
Aggregate value £	19,270	558,886	282,834	119,782	73,509	3,250	550	1,058,081
Value per acre ..	£85/12/11	£136/10/11	£119/5/9	£275/7/3	£198/2/9	£116/1/5	£183/6/8	£140/11/10

3. **Consumption.**—The annual consumption of onions in Australia averaged 50,400 tons or 14.5 lb. per head of population during the three years ended 1949–50 compared with 40,600 tons or 13.2 lb. per head during the three years ended 1938–39. These figures exclude an estimated wastage which averaged 7,900 tons and 4,500 tons respectively.

4. **Imports and Exports.**—Onions are the only root crop, other than potatoes, in which any considerable oversea trade is carried on by Australia. The last year in which onions imported was 1946–47 when approximately 100 tons were obtained, principally from New Zealand. During 1949–50 exports, which amounted to 5,901 tons, valued at £161,204, were shipped mainly to Singapore and the Pacific Islands.

§ 13. Hay.

1. **General.**—(i) *Area and Production.* As already stated, the chief crop in Australia is wheat grown for grain. In most years hay has been next in importance but in each of the three years ended 1949–50 it was third to oats (for grain).

In 1949–50 the hay area represented 7.8 per cent. of the total area cropped. A graph showing the area sown to hay since 1860 appears on page 973. In most European countries the hay consists almost entirely of meadow and other grasses, but in Australia a very large proportion consists of oats, wheat and lucerne. The area, production and average yield per acre of hay of all kinds in the several States during the years 1945–46 to 1949–50 and the averages for the ten-year periods ended 1938–39 and 1949–50 are shown below :—

HAY : AREA, PRODUCTION AND AVERAGE YIELD.

Season.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	A.C.T.	Aust.
AREA (ACRES).								
Average, 1929–30 to 1938–39 ..	757,010	1,110,016	67,850	541,205	432,217	83,118	2,338	2,994,414
1945–46 ..	758,400	1,060,496	69,084	484,060	281,410	99,758	4,028	2,757,236
1946–47 ..	546,431	677,787	67,757	329,307	277,489	104,014	2,973	2,005,758
1947–48 ..	627,654	657,146	71,834	296,261	229,172	84,354	3,766	1,970,187
1948–49 ..	374,392	591,341	59,642	234,292	226,779	90,579	2,486	1,579,511
1949–50 ..	339,091	606,525	55,108	294,590	216,320	91,335	2,271	1,605,240
Average, 1940–41 to 1949–50 ..	593,219	770,567	65,200	376,569	283,941	91,612	3,032	2,184,140

HAY : AREA, PRODUCTION AND AVERAGE YIELD—*continued.*

Season.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	A.C.T.	Aust.
PRODUCTION (TONS).								
Average, 1929–30 to 1938–39 ..	958,549	1,263,127	104,297	577,100	463,981	119,826	2,830	3,489.710
1945–46 ..	990,747	1,444,250	126,258	521,957	287,476	117,079	5,208	3,492,975
1946–47 ..	380,567	985,224	106,103	432,955	280,252	169,384	2,701	2,357,186
1947–48 ..	978,236	1,042,438	132,694	443,659	267.901	137,648	5,182	3,007,758
1948–49 ..	496,873	933,983	117,339	311,997	277,329	150,699	4,064	2,292,284
1949–50 ..	496,081	1,000,855	116,412	384,604	272,052	155,653	4,332	2,429,989
Average, 1940–41 to 1949–50 ..	676,731	1,014,795	118,531	453,017	310,549	138,297	3,979	2,715,889
AVERAGE YIELD PER ACRE (TONS).								
Average, 1929–30 to 1938–39 ..	1.27	1.14	1.54	1.07	1.07	1.44	1.21	1.17
1945–46 ..	1.31	1.36	1.83	1.08	1.02	1.17	1.29	1.27
1946–47 ..	0.70	1.45	1.57	1.31	1.01	1.63	0.91	1.18
1947–48 ..	1.56	1.59	1.85	1.50	1.17	1.63	1.38	1.53
1948–49 ..	1.33	1.58	1.97	1.33	1.22	1.66	1.63	1.45
1949–50 ..	1.46	1.65	2.11	1.31	1.26	1.70	1.91	1.51
Average, 1940–41 to 1949–50 ..	1.14	1.32	1.82	1.20	1.09	1.51	1.31	1.24

Owing to various causes, the principal being the variation in the relative prices of grain and hay and the favourableness or otherwise of the season for a grain crop, the area of hay is liable to fluctuate considerably. The area under hay in Australia during the season 1915–16, 3,597,771 acres, was the largest on record, whilst the average for the decennium ended 1949–50 was 2,184,140 acres.

(ii) *Varieties Grown.* Information regarding areas cut for hay is available for all States, and details for 1949–50 are given in the following table. Similar information for each year from 1943–44 to 1947–48 compared with 1938–39 may be found in Official Year Book No. 38, page 983, while details for 1948–49 appear in *Production Bulletin* No. 43, Part II.—*Primary Industries.*

HAY : AREA UNDER VARIOUS KINDS GROWN, 1949–50.
(Acres.)

State.	Wheaten.	Oaten.	Lucerne.	Other.	Total.
New South Wales ..	122,295	113,314	92,190	11,292	339,091
Victoria	39,117	272,100	(a) 46,976	248,332	606,525
Queensland	3,835	3,800	41,455	6,018	55,108
South Australia	99,373	145,389	9,390	40,438	294,590
Western Australia ..	68,192	107,553	93	40,482	216,320
Tasmania	2,682	40,244	802	47,607	91,335
Australian Capital Territory	179	1,185	879	28	2,271
Total	335,673	683,585	191,785	394,197	1,605,240

(*a*) Includes barley ane rye hay.

For all States and the Australian Capital Territory combined the proportions of the areas sown to the principal kinds of hay in 1949–50 were 43 per cent. for oaten, 21 per cent. for wheaten, 12 per cent. for lucerne, and 24 per cent. for other hay. In that year, oaten hay predominated in the States of Victoria, South Australia and Western Australia, wheaten hay in New South Wales, and lucerne in Queensland.

2. **Value of Hay Crop.**—The following table shows the value, and the value per acre, of the hay crop of the several States for the seasons 1948–49 and 1949–50 :—

HAY : VALUE OF CROP, 1948–49 AND 1949–50.

Particulars.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	A.C.T.	Australia.
1948–49—								
Aggregate value £	3,778,570	5,618,033	900,524	2,101,700	1,061,295	1,069,960	31,001	14,561,083
Value per acre ..	£10/1/10	£9/10/0	£15/2/0	£8/11/8	£4/13/7	£11/16/3	£12/9/5	£9/4/4
1949–50—								
Aggregate value £	4,721,490	6,708,440	1,112,958	2,967,434	1,230,970	972,830	56,103	17,770,225
Value per acre ..	£13/18/7	£11/1/2	£20/3/11	£10/1/6	£5/13/10	£10/13/0	£24/14/1	£11/1/5

3. **Farm Stocks of Hay.**—Details of stocks of hay held on farms are now collected at the annual census of farm production. Particulars of stocks so held at 31st March in each year 1946 to 1950 are given in the table below.

STOCKS OF HAY HELD ON FARMS.

(Tons.)

31st March—	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	A.C.T.	Australia.
1946 ..	504,521	1,026,581	86,722	307,494	156,841	78,414	2,123	2,162,696
1947 ..	226,926	1,019,728	58,507	388,993	156,908	113,740	950	1,965,752
1948 ..	825,821	1,059,842	96,158	478,142	164,425	95,147	3,676	2,723,211
1949 ..	691,608	969,242	84,170	404,813	167,433	88,098	3,345	2,408,709
1950 ..	680,498	1,014,747	101,222	341,888	179,783	116,549	2,530	2,437,217

4. **Imports and Exports.**—Under normal conditions, hay, whether whole or in the form of chaff, is somewhat bulky for oversea trade, and consequently does not figure largely amongst the imports and exports of Australia. During 1949–50, 5 tons were imported, while the exports amounted to 4,578 tons, valued at £45,665.

§ 14. Green Fodder.

1. **Nature and Extent.**—Considerable areas are devoted to the growing of green fodder, mainly in connexion with the dairying industry. The areas recorded in respect of green fodder include areas of crops cut for feeding to live stock as green fodder, together with areas fed off to stock as green forage. Included with the latter are areas which may have been sown with the intention of harvesting for grain, but which, due to adverse seasonal conditions, showed no promise of producing grain or even hay and were fed off to live stock. The principal crops cut for green fodder are oats, wheat and lucerne, while small quantities of barley, sorghum, maize, rye and sugar-cane also are so used. In 1949–50 the area under green fodder (2,177,896 acres) consisted of oats (1,216,246 acres), lucerne (236,681 acres), wheat (138,496 acres), sorghum (65,614 acres), maize (48,053 acres), barley (70,327 acres), rye (30,469 acres), sugar-cane (5,855 acres) and other crops (366,155 acres). Particulars concerning the area of green fodder in the several States during each of the years 1945–46 to 1949–50 are given in the following table together with the average for the periods of ten years ended 1938–39 and 1949–50 :—

GREEN FODDER : AREA.

(Acres.)

Season.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	A.C.T.	Aust.
Average, 1929–30 to 1938–39	482,989	120,355	347,804	106,820	189,332	24,255	656	1,272,211
1945–46	541,810	63,311	581,905	189,882	288,206	138,540	2,094	1,805,748
1946–47	462,894	49,659	543,030	121,800	319,181	103,607	2,091	1,602,262
1947–48	488,028	46,100	511,115	141,452	400,100	116,482	2,044	1,705,321
1948–49	548,106	50,847	544,669	291,688	447,411	125,961	2,150	2,010,832
1949–50	584,541	44,928	581,811	277,265	550,690	136,412	2,249	2,177,896
Average, 1940–41 to 1949–50	594,091	77,238	574,072	223,498	396,712	84,625	1,683	1,951,919

2. **Value of Green Fodder Crops.**—The value of these crops is variously estimated in the several States, and the Australian total for the season 1949–50, excluding Western Australia, may be taken approximately as £3,894,000.

§ 15. Sugar-cane and Sugar-beet.

1. **Sugar-cane.**—(i) *Area.* Sugar-cane growing appears to have commenced in Australia in or about 1862, and is confined to New South Wales and Queensland. A brief outline of the development of the industry was included in earlier issues of the Official Year Book (*see* No. 38, page 985). The area of sugar-cane in Australia for the seasons 1945–46 to 1949–50 and the averages for the ten-year periods ended 1938–39 and 1949–50 are shown in the following table. In 1949–50 the total area of sugar-cane (excluding areas cut for green fodder) was a record at 398,224 acres, an increase of 3.8 per cent. over the 1948–49 area of 383,501 acres.

SUGAR-CANE : AREA.(a)

(Acres.)

Season.	New South Wales.			Queensland.			Australia.			
	Area crushed.	Area of stand-over and newly-planted cane.	Area cut for plants.	Area crushed.	Area of stand-over and newly-planted cane.	Area cut for plants.	Area crushed.	Area of stand-over and newly-planted cane.	Area cut for plants.	Total.
Average, 1929–30 to 1938–39 ..	9,106	9,023	140	229,327	75,409	9,368	238,433	84,432	9,508	332,373
1945–46 ..	5,943	8,860	263	229,736	80,007	12,151	235,679	88,867	12,414	336,960
1946–47 ..	7,563	8,283	341	219,394	75,507	13,305	226,957	83,790	13,646	324,393
1947–48 ..	7,113	8,955	360	215,378	98,403	14,705	222,491	107,358	15,065	344,914
1948–49 ..	8,386	8,761	312	257,944	97,434	10,664	266,330	106,195	10,976	383,501
1949–50 ..	8,517	8,081	297	272,812	97,878	10,639	281,329	105,959	10,936	398,224
Average, 1940–41 to 1949–50 ..	8,095	8,597	287	237,648	83,511	12,186	245,743	92,108	12,473	350,324

(*a*) Excludes areas cut for green fodder.

(ii) *Productive and Unproductive Cane.* The areas shown in the preceding table do not include the small acreage cut for green fodder, which in 1949–50 amounted to 5,855 acres. The whole area planted is not cut for crushing during any one season, there being always a considerable amount of young and "stand-over" cane as well as a small quantity required for plants. Thus the season in which the highest acreage is recorded may not show the greatest area of productive cane cut for crushing.

(iii) *Production of Cane and Sugar.* For Queensland, statistics of the production of sugar-cane are not available prior to the season 1897–98. In that season the total for Australia was 1,073,883 tons, as against the maximum production of 6,848,780 tons in 1949–50.

The average production of cane during the ten seasons ended 1949–50 was 5,037,442 tons, and of raw sugar 709,930 tons. Particulars of the total production of cane and sugar for the years 1945–46 to 1949–50 and the averages for the ten-year periods ended 1938–39 and 1949–50 are as follows.

SUGAR-CANE : PRODUCTION OF CANE AND SUGAR.

(Tons.)

Season.	New South Wales.		Queensland.		Australia.	
	Cane.	Sugar.(a)	Cane.	Sugar (a)	Cane.	Sugar.(a)
Average, 1929–30 to 1938–39	241,402	30,317	4,461,988	626,789	4,703,390	657,106
1945–46	166,069	21,220	4,551,971	644,661	4,718,040	665,881
1946–47	309,605	39,768	3,717,330	512,086	4,026,935	551,854
1947–48	267,261	33,560	4,150,986	571,694	4,418,247	605,254
1948–49	273,974	33,003	6,433,556	910,049	6,707,530	943,052
1949–50	330,738	40,706	6,518,042	896,413	6,848,780	937,119
Average, 1940–41 to 1949–50	287,806	37,179	4,749,636	672,751	5,037,442	709,930

(a) Sugar at 94 net titre.

The production of raw sugar in Australia in 1949–50 amounted to 937,119 tons manufactured from 6,848,780 tons of cane, compared with the record production of 943,052 tons in 1948–49.

Official annual data are not available regarding the total number engaged in the sugar industry in Queensland, other than the number of separate holdings growing cane (6,309 in 1949–50) and of employees in sugar mills (5,898 in 1949–50).

According to data obtained from the population census of 30th June, 1947, the number of persons engaged in the sugar-cane industry in New South Wales and Queensland comprised 15,789 males and 287 females, a total of 16,076 persons, of whom 2,521 were employers and 4,549 were self-employed.

(iv) *Average Production of Cane Sugar.* Owing to climatic variation, comparison between the average yields of cane per productive acre in Queensland and New South Wales cannot be accurately made except on an annual basis. In New South Wales the crop matures in from 20 to 24 months, whereas in Queensland a period of from 12 to 14 months is sufficient. Allowing for the disparity in maturing periods the average annual yields of cane per productive acre during the ten years ended 1949–50 were 19.39 tons for New South Wales, and 18.45 tons for Queensland. Similarly, the yields of sugar per acre crushed for the same period were estimated at 2.50 tons and 2.61 tons respectively. Apart from the consideration mentioned above, the yields of cane and sugar per acre crushed for Australia for the ten years ended 1949–50 were 20.50 tons and 2.89 tons respectively, as compared with 19.73 tons and 2.76 tons for the decennium ended 1938–39.

SUGAR-CANE AND SUGAR : YIELD PER ACRE.

(Tons.)

Season.	New South Wales.			Queensland.			Australia.		
	Cane per acre Crushed.	Sugar per acre Crushed.	Cane to each ton of Sugar.	Cane per acre Crushed.	Sugar per acre Crushed.	Cane to each ton of Sugar.	Cane per acre Crushed.	Sugar per acre Crushed.	Cane to each ton of Sugar.
Average, 1929–30 to 1938–39	26.51	3·33	7·96	19.46	2.73	7·13	19·73	2.76	7·15
1945–46	27·94	3·57	7·83	19.81	2.81	7·06	20.02	2.83	7·09
1946–47	40·94	5·26	7·79	16.94	2.33	7·26	17·74	2·43	7·30
1947–48	37·57	4·72	7·96	19.27	2.65	7·26	19.86	2·72	7·30
1948–49	32.67	3·94	8.30	24.94	3·53	7·07	25.19	3·54	7·11
1949–50	38.83	4·78	8.13	23.89	3·29	7·27	24·34	3·33	7·31
Average, 1940–41 to 1949–50	35·55	4·59	7·74	19.99	2.83	7·06	20.50	2.89	7·10

(v) *Quality of Cane.* The quantity of cane required to produce a ton of sugar varies with the variety planted, the district and the season. For the ten years ended 1949–50 it required on the average 7.10 tons of cane to produce 1 ton of sugar, or 14.08 per cent. of its total weight, as compared with 7.15 tons for the ten years ended 1938–39. As the result of the systematic study of cane culture in Queensland and improvements in field and mill methods the sugar content of the cane has been considerably increased, and in 1937–38 only 6.78 tons of cane were required to produce one ton of sugar. It is believed that this is the highest sugar content obtained anywhere in the world.

The Bureau of Sugar Experiment Stations in Queensland is rendering useful service to the sugar industry by advocating and demonstrating better methods of cultivation, the more scientific use of fertilizers, lime, etc., and by producing and distributing improved varieties of cane.

(vi) *Production and Utilization.* Details of the production and utilization of raw sugar for the three years ended 1938–39 and each year 1946–47 to 1950–51 are shown below. It should be noted that the details of sugar production refer to the annual periods shown, without regard to the season in which the sugar was produced; they include beet sugar. Consumption is shown in terms of refined sugar, including that consumed in manufactured products.

RAW SUGAR: PRODUCTION AND UTILIZATION, AUSTRALIA.

Year.	Changes in Stock.	Production—Raw.	Exports. (*a*)	Miscellaneous Uses. (*b*)	Consumption in Australia.(*a*)	
					Total.(*c*)	Per Head. (*c*)
	'000 tons.	'000 tons.	'000 tons.	'000 tons.	'000 tons.	lb.
Average 1936–37 to 1938–39	+ 6.2	779·3	453·3	11.2	326.6	106.5
1946–47	−42.9	521.0	153.6	21.3	389.0	115.9
1947–48	+42.9	633.2	140.3	22.1	427.9	125.4
1948–49	+ 7·3	897·3	461.0	19.5	409.5	117.6
1949–50	−10.4	902.5	483·4	19.5	410.0	116.2
1950–51(*d*)	+ 5.0	906.9	433·3	18.7	449.9	121.2

(*a*) Includes sugar content of manufactured products. (*b*) Includes industrial uses and losses in refining. (*c*) In terms of refined sugar. (*d*) Subject to revision.

(vii) *Consumption in Factories.* The quantity of sugar used in factories during 1938–39 and each of the years 1945–46 to 1949–50 is shown in the following table, the figures including, where necessary, estimates of consumption based on the sugar content of the finished product. Particulars of sugar used in establishments not classified as factories are not available, and consequently the quantities shown below are deficient to that extent.

SUGAR: CONSUMPTION IN FACTORIES, AUSTRALIA.

(Tons.)

Factories.	1938–39.	1945–46.	1946–47.	1947–48.	1948–49.	1949–50.
Aerated Waters and Cordials	11,810	26,509	28,394	27,508	31,157	36,984
Bacon	267	310	342	344	345	377
Biscuits and Bakeries, including Cakes and Pastry ..	18,801	25,538	28,486	28,684	30,334	31,938
Breweries	16,733	21,081	23,966	23,339	26,851	28,819
Cereal Foods	1,287	1,112	1,154	1,140	1,495	1,602
Condensed and Concentrated Milk	6,889	15,970	17,664	19,620	19,767	20,360
Confectionery, Ice Cream, etc.	26,926	41,538	49,816	47,411	47,327	50,840
Jams, Jellies and Preserved Fruit(*a*)	40,537	70,026	74,546	88,686	75,775	80,171
Other(*b*)	633	4,186	937	2,525	3,990	2,958
Total(*c*)	123,883	206,270	225,305	239,257	237,041	254,049

(*a*) Includes Condiments, Pickles, etc. (*b*) Includes sugar consumed in the industrial and heavy chemicals and dehydrated fruit and vegetables industries. (*c*) Excludes raw sugar used in wineries and distilleries, details of which are not available for publication.

(viii) *Control of Cane Production in Queensland.* Agreements between the Commonwealth and Queensland Governments have fixed the wholesale price of sugar and sugar products from time to time. On 1st September, 1946, a Sugar Agreement Act came into operation, fixing the wholesale price at £33 4s. per ton (4d. per lb. retail). Subsequently this Act was twice amended, in December, 1947, when the price was raised to £37 6s. 8d. per ton (4½d. per lb. retail) and in October, 1949, when a further increase to £41 9s. 4d. per ton (5d. per lb. retail) was granted. This Act was due to expire on 31st August, 1951, but on 27th June, 1951, a new agreement was signed. This new agreement, which came into operation on 7th July, 1951, repealed the 1946, 1947 and 1949 agreements and increased the wholesale price to £53 6s. 8d. per ton (6½d. per lb. retail). The new agreement is intended to cover the period up to 31st August, 1956.

The net proceeds of all sugar sold in Australia and sugar sold abroad are pooled and a uniform price per ton is paid to the mills. This pooling is made possible by the acquisition by the Queensland Government of all sugar produced in the State, under legislation which has been in force since 1915. The small New South Wales production (about 5 per cent. of the whole) is also acquired by the Queensland Government by private agreement.

Sugar production, which in 1923 had scarcely been sufficient to cover Australian requirements, grew very rapidly in subsequent years. In 1925 the Queensland Government took steps to prevent, as a general rule, new land from being opened up for cane production. During that year 56 per cent. of the sugar production was consumed in Australia and 44 per cent. exported. After 1925, production remained stable for some years. In 1929 the operations of the pool, which had hitherto received at a uniform price all sugar offered it by the mills, were re-organized. After 1929, mills received the full pool price for sugar up to the amount of their previous maximum production only. Any further supplies were acquired at export price only.

Between 1929 and 1939 the export price was generally less than half the pool price. In spite of this, production increased by 72 per cent. during that period. In 1939, in view of the fact that the International Sugar Agreement imposed certain restrictions on the volume of Australian exports, the Queensland Parliament passed further legislation limiting the pool (mill peaks) to 737,000 tons in respect of production in Queensland. Any production in excess of this was to be acquired at a penalty price. This tonnage was divided up in quotas between the mills, on the understanding that the mills would allocate quotas of production to individual farmers. Proclamations issued by the Queensland Government, however, permitted the harvesting of the whole of the crops for the seasons 1939 to 1948.

In 1948 the mill peak was raised to 874,000 tons. As a result of the Commonwealth Countries Sugar Marketing Agreement, negotiated in London in December, 1949, the Queensland Government initiated a controlled expansion of the industry, and for the 1950 season mill peaks were increased to 942,300 tons. Further increases in mill peaks to 1,045,000 tons were subsequently announced, to operate from 1953.

2. **Sugar-beet.**—The production of sugar-beet, which in recent years has been confined to Victoria, fell from an average of 4,642 tons in the ten years ended 1938–39 to 584 tons in 1947–48. There was no production during 1948–49 and 1949–50.

3. **Sugar Agreement in Australia—Embargo on Imports, etc.**—Reference was made in Official Year Book No. 37 (pp. 940, 941) to the agreement operating between the Commonwealth and Queensland Governments in respect of the sugar industry in Australia. Briefly, the agreement places an embargo on sugar importations and fixes the price of sugar consumed in Australia. A new agreement operating from 7th July, 1951 covers the period up to 31st August, 1956.

4. **International Sugar Agreement.**—Delegates of 21 Nations, representing 90 per cent. of producers, met in London and entered into an agreement on 6th May, 1937, providing for the regulation of the production and marketing of sugar in the world during a period of five years from 1st September, 1937. The object of the agreement was to ensure an adequate supply of sugar at a price not exceeding the cost of production, including a reasonable profit to efficient producers. For this purpose, each exporting country was given a basic annual export quota which would be increased in proportion to any expansion in sugar consumption. By this means and by limitations on stocks and measures to encourage more consumption it was hoped that the International Sugar

Council, which was established to administer the agreement, would be able to hold in proper balance the supplies and requirements of sugar. The export quota originally allotted to Australia was 400,000 long tons. This figure could be increased, however, where the delivery from any British Colony fell short of its quota. In such circumstances, the deficiency could be allocated among other producing countries of the Empire, including Australia.

This agreement, which normally would have expired on 31st August, 1942, has proved of great benefit to Australia. In 1943, fourteen of the original 21 Nations signed a protocol continuing the agreement for another two years ending 31st August, 1944. Eight further protocols have since been signed, each extending the agreement for a period of one year, the last protocol extending the agreement to 31st August, 1952. The first protocol, signed in 1943, continued the agreement unchanged, while the latter protocols contained two new provisions. The first of these provisions was that during the period of the extension, the quotas fixed in the agreement should be inoperative. The second provision was that the signatories of the protocols recognized that revision of the agreement was necessary and should be undertaken when the time appeared opportune. The protocols prescribed that, in any negotiations for a new agreement, the existing agreement shall be taken as the starting point.

5. **Net Return for Sugar Crop.**—Calculations by the Sugar Board regarding the disposal of the crop, net value of exports and the average price realized during each of the years 1938–39 and 1945–46 to 1949–50 will be found in the following table :—

SUGAR : NET RETURNS, AUSTRALIA.

Year.	Proportion Exported. (a)	Net Value of Exports per Ton. (a)			Average Price per ton for Whole Crop. (a)			Estimated Value of Crop.
	Per cent.	£	s.	d.	£	s.	d.	£
1938–39	55.78	8	4	3	15	3	11	12,806,376
1945–46	31.53	16	17	9	20	6	5	13,674,661
1946–47	16.02	21	10	0	21	16	9	12,326,952
1947–48	17.61	29	12	6	24	19	9	14,879,144
1948–49	47.00	28	2	0	25	8	6	23,904,606
1949–50	46.92	29	7	6	26	13	8	25,362,288

(a) As supplied by the Queensland Sugar Board.

The estimated value of the raw sugar produced has been taken from the audited accounts of the Queensland Sugar Board. The values stated represent the gross receipts from sales in Australia and overseas, less refining costs, freight, administrative charges, etc., and export charges, but not deducting concessions to the fruit industry and other rebates which in 1949–50 amounted to £216,000. The value thus obtained represents the net market value of all raw sugar sold, which, since 1933, has been divided between the growers and millers in the approximate proportions of 70 per cent. and 30 per cent. respectively. Prior to that year the distribution was about two-thirds to the grower and one-third to the miller.

6. **Imports and Exports of Sugar.**—Particulars showing the imports and exports of cane sugar (raw and refined) for the five years ended 1938–39 and each year 1945–46 to 1949–50 are as follows :—

SUGAR : IMPORTS AND EXPORTS, AUSTRALIA.

Year.	Imports.		Exports.		Net Exports.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
	Tons.	£	Tons.	£	Tons.	£
Average, 1934–35 to 1938–39 ..	23	505	377,930	3,480,632	377,907	3,480,127
1945–46	..	3	150,972	3,059,599	150,972	3,059,596
1946–47	..	23	117,379	2,717,252	117,379	2,717,229
1947–48	..	21	100,351	3,062,450	100,351	3,062,429
1948–49	..	48	415,194	13,199,309	415,194	13,199,261
1949–50	..	80	432,711	14,147,150	432,711	14,147,070

7. **Sugar By-products.**—Large quantities of molasses are produced as a by-product in the sugar mills. Details for a series of years of the quantities produced and the amounts used for distilling, fuel, manure and other purposes will be found in Chapter XXIV.—Manufacturing Industry.

Boards are now being made from the residue of crushed fibre after the removal of the sugar content from sugar-cane. These boards are used in the building industry for walls and ceilings and possess high insulating and sound-absorbing properties.

8. **Sugar Prices.**—The prices of sugar in Australia from 1939 to 1941 and 1947 to 1950 in the case of raw sugar, and from 1925 to 1936 and 1947 to 1956 in the case of refined sugar, are shown in the following table.

SUGAR : PRICES IN AUSTRALIA.

Year.	Raw Sugar, 94 Net Titre. Average Return per Ton received by millers and growers for— Home Consumption.	Exports. (a)	Whole Crop. (a)	Refined Sugar. Date of Determination.	Wholesale Price per ton.	Retail Price per lb.
	£ s. d.	£ s. d.	£ s. d.		£ s. d.	d.
1939 ..	23 12 6	10 7 6	15 17 7	1.9.25 to 31.8.31 ..	37 6 8	4½
1940 ..	23 1 0	11 5 6	17 2 11	1.9.31 to 4.1.33 ..	37 6 8	4½
1941 ..	22 13 0	10 18 9	17 18 11	5.1.33 to 31.8.36 ..	33 4 0	4
1947 ..	24 0 0	29 12 6	24 19 9	4.12.47 to 28.10.49	37 6 8	4½
1948 ..	23 1 0	28 2 0	25 8 6	29.10.49 to 6.7.51	41 9 4	5
1949 ..	24 6 0	29 7 6	26 13 8	7.7.51 to 31.8.56 ..	53 6 8	6½
1950 ..	23 16 6	32 16 6	27 17 2			

(a) Including "Excess" Sugar.

9. **War and Post-war Arrangements.**—After the outbreak of war in September, 1939, the British Ministry of Food concluded arrangements with the Queensland Goverment for the purchase of Australia's surplus production of raw sugar for the season 1939. The price was fixed at £Stg.7 10s. per ton at United Kingdom ports plus the preference on dominion sugar of £Stg.3 15s. per ton under the existing tariff.

Similar agreements were negotiated for the disposal of the surplus raw sugar in subsequent seasons, the price in sterling currency per ton c.i.f. United Kingdom ports, basic 96° polarization being as follows :—1940 and 1941, £12 12s. 6d.; 1942, £13 15s. ; 1943, £14 5s. ; 1944, £15 5s.; and 1945, £17 5s.—inclusive of the existing preference of £3 15s. From the 1st January, 1946 the price was further increased by £Stg.2 5s. per ton and the United Kingdom agreed to absorb an additional 12s. 6d. per ton on the freight cost. The price was further increased to £Stg. 24 5s. per ton from 1st January, 1947 and to £Stg.27 5s. per ton from 1st January, 1948. Further price increases to £Stg.30 10s. as from 1st January, 1950 and to £Stg.32 17s. 6d. per ton as from 1st January, 1951 have since become operative.

In December, 1949, a Commonwealth Countries Sugar Marketing Agreement was formulated in London, the terms of which include an undertaking by the United Kingdom Government to find a market for the Australian exportable surplus sugar to the end of 1952.

For the six years 1953-1958, Australia is to plan for aggregate exports not exceeding 600,000 tons annually. Of this amount, the United Kingdom Government agreed to take 314,000 tons at guaranteed prices to be negotiated annually. The balance of 286,000 tons is expected to find a market in the United Kingdom or Canada at the world price plus United Kingdom or Canadian preference. Provision is made for extension of the term of the agreement, and for upward revision of the quotas, if necessary.

§ 16. Vineyards.

1. **Progress of Cultivation.**—(i) *Area of Vineyards.* The date of introduction of the vine into Australia has been variously set down by different investigators, the years 1815 and 1828 being principally favoured. It would seem, however, that plants were brought out with the first fleet in 1788; consequently the Australian vine is as old as Australian settlement. A report by Governor Hunter gives the area of vines in 1797 as 8 acres. From New South Wales the cultivation spread to Victoria and South Australia, and these States have now far outstripped New South Wales in the area of this crop. In Western Australia an expansion of area under vineyards has occurred in recent years, but in Queensland, where vine-growing has been carried on for many years, little progress has been made. The purposes for which grapes are grown in Australia are (*a*) for wine-making, (*b*) for table use, and (*c*) for drying. The total area of vines in the several States during each of the years 1945–46 to 1949–50 and the averages for the ten-year periods ended 1938–39 and 1949–50 are shown in the following table :—

VINEYARDS : AREA.
(Acres.)

Season.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	A.C.T.	Australia.
Average, 1929–30 to 1938–39 ..	15,777	40,563	2,142	54,156	5,666	..	118,304
1945–46	15,983	42,843	3,003	57,440	9,583	3	128,855
1946–47	16,338	42,948	2,945	58,221	9,857	3	130,312
1947–48	16,541	43,784	3,087	58,885	10,025	9	132,331
1948–49	16,568	45,609	3,265	59,806	10,014	10	135,272
1949–50	16,931	45,386	3,135	60,253	9,676	10	135,391
Average, 1940–41 to 1949–50 ..	16,348	43,462	3,110	58,345	9,749	4	131,018

(ii) *Report on the Wine Industry.* An investigation into conditions in the wine industry was undertaken by the Commonwealth Director of Development and the Senior Inspector of Excise, Department of Trade and Customs, and a comprehensive report was presented to Parliament on the 17th July, 1931.

During 1944 the Minister for Trade and Customs referred a number of matters to the Tariff Board for inquiry and report. Subsequently four reports were issued during 1944–45 which dealt with the following subjects, viz. :—Use of cane sugar in sauterne, spirit for fortification of wine, prices for grapes and fortifying spirit and control of liquor order.

(iii) *Wine Production, Bounties, etc.* The production of wine has not increased as rapidly as the suitability of soil and climate would appear to warrant. Production for the ten years ended 1949–50 averaged 24.8 million gallons compared with 16.3 million gallons produced during the ten years ended 1938–39. This seems to arise from two causes. In the first place, Australians are not a wine-drinking people : it is estimated that prior to the 1939–45 War they consumed approximately 4.1 million gallons only, or 0.6 gallons per head per annum, and while this had risen to 12.1 million gallons (1.5 gallons per head of population) in 1949–50, the local market is nevertheless restricted. Secondly, the comparatively new and unknown wines of Australia must compete in the markets of the old world with the well-known and long-established brands from other countries. Continued efforts are being made to bring the Australian wines under notice both here and abroad, and with the assistance of a Commonwealth bounty on the export of fortified wine of specified strength the industry has been greatly stimulated. Further development, however, was interrupted by the war. The loss of the United Kingdom market due to the lack of shipping space placed the wine industry of Australia in a most difficult position, but this was partly offset by the increase in local consumption due to the availability of supplies, the restriction on the production of beer and the presence of large numbers of defence personnel.

The Wine Export Bounty Act 1930 which provided for payment at the rate of 1s. 9d. per gallon was replaced in 1934 by a new Act which fixed the rate at 1s. 3d. per gallon for the two years ended 28th February, 1937, and thereafter at a reduction of 1d. per gallon for each succeeding year until 1940. The payment of a bounty at the rate of 1s. per gallon for a period of five years to 28th February, 1945, subsequently extended to 28th February, 1947, was provided for under the Wine Export Bounty Act of 1939–1944. This Act was repealed by the Wine Export Bounty Act 1947 which made provision for payment of bounty, subject to certain conditions, on wine sold overseas prior to 30th October, 1946 and exported after 28th February, 1947.

The quantity of wine produced in the several States during the 1945–46 to 1949–50 seasons, together with the averages for the ten-year periods ended 1938–39 and 1949–50, is shown in the following table :—

WINE : PRODUCTION.

('000 Gallons.)

Season.	N.S.W.	Victoria.	Queensland.	S. Aust.	W. Aust.	Australia.
Average, 1929–30 to 1938–39	2,099	1,449	36	12,349	397	16,330
1945–46 ..	2,968	1,916	35	20,213	726	25,858
1946–47 ..	3,905	3,082	30	25,422	751	33,190
1947–48 ..	4,500	2,958	28	26,000	673	34,159
1948–49 ..	4,127	3,081	36	26,295	644	34,183
1949–50 ..	5,185	3,230	45	24,978	528	33,966
Average, 1940–41 to 1949–50	3,586	2,012	32	18,552	573	24,755

2. Imports and Exports of Wine.—(i) *Imports.* The principal countries of origin of wine imported into Australia were, before the 1939–45 War, France, Spain, Portugal and Italy, the bulk of the sparkling wines coming from France. The bulk of the post-war wine imports have been obtained from France. The imports for the five years ended 1949–50 compared with average imports for the years 1934–35 to 1938–39 are shown hereunder :—

WINE : IMPORTS INTO AUSTRALIA.

Year.	Quantity (Gallons).			Value (£).		
	Sparkling.	Other.	Total.	Sparkling.	Other.	Total.
Average, 1934–35 to 1938–39	8,119	28,566	36,685	20,245	19,332	39,577
1945–46 ..	40	479	519	213	1,433	1,646
1946–47 ..	1,719	1,585	3,304	7,909	3,041	10,950
1947–48 ..	14,768	4,158	18,926	54,098	8,282	62,380
1948–49 ..	24,679	19,098	43,777	67,450	27,020	94,470
1949–50 ..	6,599	19,814	26,413	25,245	28,812	54,057

(ii) *Exports.* Before the 1939–45 War practically all wine exported was sent to the United Kingdom, only 200,000 gallons (approximately) being sent elsewhere. Exports in 1949–50 totalled 1,103,318 gallons, of which the United Kingdom received 613,698 gallons, New Zealand, 205,233 gallons, Canada, 193,659 gallons, and other countries 90,728 gallons.

Exports for the five years ended 1949–50 are shown in the following table in comparison with average exports during the five years ended 1938–39 :—

WINE : EXPORTS FROM AUSTRALIA.

Year.	Quantity (Gallons).			Value. (£)		
	Sparkling.	Other.	Total.	Sparkling.	Other.	Total.
Average, 1934–35 to 1938–39	3,772	3,559,094	3,562,866	5,400	938,195	943,595
1945–46 ..	7,984	1,776,452	1,784,436	10,619	729,969	740,588
1946–47 ..	3,244	2,717,355	2,720,599	4,975	1,176,626	1,181,601
1947–48 ..	5,935	2,682,431	2,688,366	8,071	1,421,861	1,429,932
1948–49 ..	5,180	1,873,083	1,878,263	11,558	982,401	993,959
1949–50 ..	6,093	1,097,225	1,103,318	6,323	509,516	515,839

3. **Overseas Marketing of Wine.**—(i) *The Wine Overseas Marketing Act* 1929–1945. This Act was introduced at the request of the viticultural interests in Australia with the object of placing the oversea marketing of Australia's surplus wine on an orderly basis. The Wine Overseas Marketing Board was appointed to supervise the exports, and the sale and distribution after export, of Australian wine.

The name of the Board was changed to the Australian Wine Board in 1936. An amendment to the Act in 1945 made provision for eleven members on the Board, comprising five representatives of proprietary and privately-owned wineries and distilleries, two representatives of co-operative wineries and distilleries, three representatives of grape-growers supplying to wineries and distilleries, and one representative of the Commonwealth Government. No wine may be exported except by means of a licence which is issued under conditions recommended to the Minister by the Board ; these include the withholding of shipments as directed by the Board. The Board has a London agency which advises on marketing conditions. The methods of marketing adopted by the Board have resulted in the widening of the distribution of Australian wines overseas.

(ii) *The Wine Grapes Charges Act* 1929–1941. This Act provides for the imposition of a levy on all grapes used in Australia for the manufacture of wines or spirit used for fortifying wine. The proceeds of the levy are used to defray the administrative and other expenses of the Board, and provision is made for such exemptions from the levy as the Board may recommend.

4. **Other Viticultural Products.**—(i) *Table Grapes.* Grapes for table use are grown in all the States except Tasmania, but the area cultivated to this variety is only about 7 per cent. of the productive area of grapes. The greatest development in the industry has taken place in the drying of raisins and currants, particularly in Victoria and South Australia. The quantities of table grapes grown during the seasons 1945–46 to 1949–50 and the averages for the ten-year periods ended 1938–39 and 1949–50 are as follows.

TABLE GRAPES : PRODUCTION.

(Tons.)

Season.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Australia.
Average, 1929–30 to 1938–39	4,354	3,884	2,060	738	2,874	13,910
1945–46	4,817	4,133	3,120	1,036	2,342	15,448
1946–47	4,682	3,537	2,669	1,314	2,436	14,638
1947–48	4,835	4,328	2,851	660	2,320	14,994
1948–49	4,372	3,775	1,640	1,413	1,956	13,156
1949–50	4,023	3,690	2,191	934	1,683	12,521
Average, 1940–41 to 1949–50	4,705	4,082	2,576	1,137	2,491	14,991

(ii) *Raisins and Currants.* The quantities of raisins (sultanas and lexias) and currants dried during each of the seasons 1945–46 to 1949–50 and the averages for the ten-year periods ended 1938–39 and 1949–50 are shown in the following table. The production of 103,410 tons for the 1943–44 season represents the greatest output recorded in any year. Due to adverse seasonal conditions, heavy crop losses occurred during the three succeeding years. Production in 1946–47 amounted to 65,197 tons, in 1947–48 it rose to 84,828 tons, but fell again to 64,904 tons in 1948–49 and rose slightly to 67,856 tons in 1949–50.

RAISINS(*a*) AND CURRANTS : PRODUCTION.

(Tons.)

Season.	N. S. Wales.		Victoria.		South Aust.		Western Aust.		Australia.	
	Raisins.	Currants.	Raisins.	Currants.	Raisins.	Currants.	Raisins.	Currants.	Raisins.	Currants.
Average, 1929–30 to 1938–39 ..	4,234	796	35,235	7,995	11,494	8,007	697	1,789	51,660	18,587
1945–46 ..	6,859	922	42,995	6,435	8,819	4,467	815	2,528	59,488	14,352
1946–47 ..	5,523	814	37,215	6,088	8,246	2,797	719	3,795	51,703	13,494
1947–48 ..	6,944	1,079	47,160	8,086	11,358	6,682	544	2.975	66.006	18,822
1948–49 ..	3,819	1,090	35,705	7,967	6,829	6,250	478	2,766	46,831	18,073
1949–50 ..	5,721	898	42,194	6,930	5,895	4,244	289	1,685	54,099	13,757
Average, 1940–41 to 1949–50 ..	6,396	1,120	42,250	7,634	12,090	6,660	598	2,719	61,334	18,133

(*a*) Sultanas and lexias.

5. **Production and Disposal of Dried Vine Fruit.**—As the production of dried vine fruit is far in excess of Australia's requirements, considerable quantities are available for export overseas. Details of the quantities disposed of in Australia and overseas, as recorded by the Commonwealth Dried Fruits Control Board, are given in the table below. Australian consumption includes amounts delivered to biscuit manufacturers, bakeries, etc., as well as retail sales for household consumption.

DRIED VINE FRUIT : QUANTITIES DISPOSED OF, AUSTRALIA.

(Tons.)

Season ended December—	Australian Consumption.	Overseas.					Grand Total.
		United Kingdom.	Canada.	New Zealand.	Other Countries.	Total.	
1944	35,071	44,570	16,000	6,756	1,820	69,146	104,217
1945	24,415	21,500	15,000	5,548	1,569	43,617	68,032
1946	20,549	32,000	14,000	5,000	844	51,844	72,393
1947	19,015	21,300	10,988	4,443	612	37,343	56,358
1948	25,999	28,542	18,274	6,167	1,649	54.632	80,631
1949	24,844	11,978	14,073	4,650	885	31,586	56.430
1950(*a*)	22,584	9,948	18,774	5,254	940	34,916	57,500

(*a*) Estimated.

6. **Exports of Raisins and Currants.**—The following table shows the oversea exports of raisins and currants during each of the years 1945–46 to 1949–50 compared with the average for the five years ended 1938–39. As the quantities of imports were practically negligible they have been omitted.

RAISINS AND CURRANTS : EXPORTS, AUSTRALIA.

Year.	Raisins.		Currants.		Total Raisins and Currants.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
	Tons.	£	Tons.	£	Tons.	£
Average, 1934–35 to 1938–39	43,191	1,686,447	15,054	548,838	58,245	2,235,285
1945–46 ..	30,022	1,547,688	9,307	403,645	39,329	1,951,333
1946–47 ..	35,248	1,913,574	5,606	243,508	40,854	2,157,082
1947–48 ..	31,364	1,795,358	10,066	468,684	41,430	2,264,042
1948–49 ..	37,077	2,369,216	13,696	740,762	50,773	3,109,978
1949–50 ..	28,558	1,818,662	7,063	408,962	35,621	2,227,624

Since 1912 Australia has not only produced sufficient raisins and currants for home consumption but has been able to maintain a large export trade. The chief countries importing Australian raisins and currants are the United Kingdom, New Zealand and Canada, the quantities exported thereto in 1949–50 being 9,822 tons, 4,034 tons and 20,556 tons respectively. Exports to Canada increased from 4,600 tons in 1928–29 to 16,944 tons in 1939–40 and to 25,955 tons in 1944–45, but decreased to 20,556 tons in 1949–50.

7. **War-time Contract.**—At the outbreak of war in 1939 the Government of the United Kingdom purchased all available surpluses after provision had been made for Canadian and New Zealand requirements. During the 1944 and 1945 seasons prices fixed under these contracts represented a substantial increase over pre-war prices.

8. **Post-war Contract.**—A long term agreement was negotiated between the Governments of the United Kingdom and Australia for the purchase of the exportable surplus of the dried vine fruit crop for the 1946, 1947 and 1948 seasons. A further agreement has been reached between the Governments of the United Kingdom and Australia under which Australian dried vine fruits will be purchased by the United Kingdom during the years 1949 to 1953. The contract provides that the quantity of fruit to be purchased each year shall not exceed a value of £2,500,000 sterling currency on an f.o.b. basis. Export prices have been fixed for the first two years, but during the remaining three years they are to be the subject of annual agreement by the two Governments. The contract prices for currants, sultanas and lexias sold to the United Kingdom during the war years 1943, 1944 and 1945, as well as the prices fixed under the post-war contracts covering the years 1946 to 1951, are shown in the following table.

DRIED VINE FRUITS : CONTRACT PRICES PER TON TO UNITED KINGDOM.

(£A. *s. d.*, f.o.b. Australian Ports.)

Fruit.	Grade.	1943.	1944.	1945.	1946 to 1948.	1949 and 1950.	1951.
Currants ..	1 Crown and upwards	37 16 3	41 11 3	43 2 6	50 0 0	60 0 0	93 15 0
Sultanas ..	1 Crown and upwards	51 5 0	55 0 0	56 11 3	65 0 0	70 0 0	125 0 0
Lexias ..	4 and 5 Crown ..	50 12 6	54 7 6	55 18 9	64 7 6	64 7 6	125 0 0

9. **Oversea Marketing of Dried Fruits.**—(i) *The Dried Fruits Export Control Act* 1924–1938. This Act was passed by the Commonwealth Parliament at the request of the dried fruits industry to organize the overseas marketing of Australian dried vine fruits. The Dried Fruits Control Board, consisting of eight members—including five growers'

representatives, two members with commercial experience and one Government nominee—was appointed to control the export, and the sale and distribution after export, of Australian sultanas, currants and lexias. In conjunction with its London agency, the Board has improved the marketing of Australian dried fruits overseas, and has increased the demand for the product. Its system of appraisement has resulted in more satisfactory realizations. Its methods of ensuring continuity of supply and regulating shipments and its participation in the advertising campaign of the Australian Overseas Trade Publicity Committee have benefited the industry considerably. No dried fruits may be exported except by means of a licence, which is issued subject to conditions recommended by the Board.

(ii) *Dried Fruits Export Charges Act* 1924–1929. This Act provides for the imposition of a levy on all sultanas, currants and lexias exported from Australia for the purpose of defraying the administrative expenses of the Board and the cost of advertising, etc. The rate of the levy is fixed by regulation. Under an amendment made in 1927 provision was made for the exemption of sultanas, currants and lexias from the levy upon recommendations by the Board.

(iii) *The Dried Fruits Act* 1928–1935. In previous issues of the Official Year Book reference has been made to the Dried Fruits Act and its provisions have been outlined (*see* p. 894 of Official Year Book, No. 28).

§ 17. Orchards and Fruit-Gardens.

1. **Area.**—The largest area of orchards and fruit-gardens prior to the 1939–45 War was attained in 1933–34 when 281,899 acres were planted. From that year until 1942–43, when 260,384 acres were under fruit, there was a gradual decline. In each subsequent year there was a continuous upward movement to 1947–48 when the area reached a new peak of 290,320 acres. The area has since declined to 286,751 acres in 1948–49 and to 279,928 acres in 1949–50. The total area of orchards and fruit-gardens in the several States during the years 1945–46 to 1949–50 compared with the averages for the ten seasons 1929–30 to 1938–39 and the ten seasons 1940–41 to 1949–50, is shown in the following table:—

ORCHARDS AND FRUIT-GARDENS: AREA.

(Acres.)

Season.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	A.C.T.	Aust.
Average, 1929–30 to 1938–39	84,025	76,643	32,437	29,365	20,703	32,627	69	275,869
1945–46	84,062	69,479	34,946	27,223	21,730	32,284	99	269,823
1946–47	90,599	71,312	35,928	28,126	21,908	31,619	108	279,660
1947–48	98,901	71,513	38,665	28,338	22,063	30,739	101	290,320
1948–49	95,421	71,746	37,735	29,732	22,585	29,448	84	286,751
1949–50	94,725	71,046	35,986	26,858	22,744	28,471	98	279,928
Average, 1940–41 to 1949–50	87,543	70,231	34,025	28,068	21,806	31,048	111	272,832

2. **Varieties of Crops.**—The varieties grown differ in various parts of the States, ranging from such fruits as the pineapple, papaw, mango and guava of the tropics, to the strawberry, the raspberry and the currant of the colder parts of the temperate zone. In New South Wales, citrus fruits (oranges, lemons, etc.) and bananas are the principal crops, although apples, peaches, plums, pears and cherries are extensively grown. The principal varieties grown in Victoria are the apple, peach, pear, orange, plum and apricot. In Queensland, the banana, pineapple, apple, orange, mandarin, peach and plum are the varieties most largely cultivated. In South Australia, in addition to the apple, orange, apricot, plum, peach and pear, the almond and the olive are extensively grown. In

Western Australia, the apple, orange, lemon, pear, plum, peach, apricot and fig are the chief varieties. In Tasmania, the apple occupies over two-thirds of the fruit-growing area, but small fruits, such as the currant, raspberry and gooseberry, are extensively grown, while the balance of the area is mainly taken up with the pear, apricot and plum. The following table shows the acreage—bearing and non-bearing—of the principal kinds of fruit, and the quantity and value of fruit produced.

ORCHARDS AND FRUIT-GARDENS, 1949–50.

Fruit.		N.S.W.	Vic.	Q'land.	S. Aust.	W.Aust.	Tas.	A.C.T.	Aust.
				AREA, BEARING AND NON-BEARING (ACRES).					
Apples	..	14,645	20,738	6,369	6,960	13,127	19,837	68	81,744
Apricots	..	2,059	5,291	333	3,735	488	1,367	4	13,277
Bananas	..	21,571	..	7,504	..	594	..	..	29,669
Cherries	..	2,674	1,907	7	1,051	45	79	2	5,765
Citrus—									
Oranges	..	25,790	5,050	4,032	5,166	3,723	..	..	43,761
Mandarins	..	2,475	94	1,828	114	214	..	..	4,725
Lemons	..	3,620	1,976	507	384	597	..	..	7,084
Other	..	915	348	173	188	173	..	..	1,797
Nuts	..	874	1,006	286	3,167	349	..	7	5,689
Peaches	..	8,454	14,753	1,517	1,675	808	107	4	27,318
Pears	..	3,544	13,120	312	1,655	1,019	1,923	6	21,579
Pineapples	..	294	..	9,319	..	1	..	..	9,614
Plums and Prunes	..	4,737	3,451	1,174	1,650	917	292	5	12,226
Other Small Fruits	..	27	760	205	178	20	4,811	..	6,001
Other Fruits ..	..	3,046	2,552	2,420	935	669	55	2	9,679
Total ..	..	94,725	71,046	35,986	26,858	22,744	28,471	98	279,928
				PRODUCTION.					
Apples ..	bus.	1,296,430	810,836	536,742	663,450	1,116,886	4,794,000	6,731	9,225,075
Apricots ..	,,	306,306	608,515	13,327	428,808	42,140	64,050	97	1,463,243
Bananas ..	,,	2,743,600	..	533,960	..	103,379	..	..	3,380,939
Cherries ..	,,	154,425	44,059	222	59,484	1,515	5,755	8	265,468
Citrus—									
Oranges ..	,,	2,639,376	638,816	277,595	1,077,709	371,552	..	..	5,005,048
Mandarins ..	,,	214,548	13,852	141,315	25,475	18,751	..	..	413,941
Lemons ..	,,	366,485	142,887	58,824	56,974	96,015	..	..	721,185
Other ..	,,	135,494	52,953	16,906	26,872	21,536	..	..	253,761
Nuts ..	lb.	178,930	223,218	69,522	2,066,176	48,536	..	56	2,586,438
Peaches ..	bus.	790,669	1,236,733	81,194	137,074	49,689	7,916	80	2,303,355
Pears ..	,,	408,607	1,884,012	26,304	206,151	66,661	268,950	178	2,860,863
Pineapples ..	,,	38,931	..	2,374,748	..	40	..	..	2,413,719
Plums and Prunes	,,	342,144	169,090	67,168	110,744	67,401	48,876	136	805,559
Other Small Fruits	cwt.	121	11,260	7,756	2,774	598	132,897	..	155,406
				GROSS VALUE OF PRODUCTION. (£.)					
Apples ..	..	1,673,850	891,920	636,720	574,644	998,626	2,924,990	8,750	7,709,500
Apricots ..	..	437,480	410,748	17,898	374,625	58,294	28,600	140	1,327,785
Bananas ..	..	3,076,460	..	519,165	..	284,291	..	..	3,879,916
Cherries ..	..	509,560	99,133	1,110	130,865	10,315	5,470	27	756,480
Citrus—									
Oranges ..	..	2,242,960	551,389	260,827	988,314	327,924	..	..	4,371,414
Mandarins ..	..	195,590	14,198	105,986	30,144	21,043	..	..	366,961
Lemons ..	..	231,300	95,018	46,557	36,084	47,342	..	..	456,301
Other ..	..	82,200	32,985	11,098	18,314	10,993	..	..	155,590
Nuts ..	..	10,910	21,201	3,424	131,231	4,013	..	3	170,782
Peaches ..	..	656,840	711,122	81,781	150,865	83,367	3,090	70	1,687,135
Pears ..	..	392,240	1,271,708	19,890	154,577	68,080	200,890	168	2,107,553
Pineapples ..	..	29,600	..	1,293,425	..	24	..	..	1,323,049
Plums and Prunes	..	432,300	76,091	88,638	93,805	78,634	16,580	164	786,212
Other Small Fruits	..	1,520	71,238	66,718	20,284	11,618	412,880	..	584,258
Other Fruits ..	..	222,240	60,082	205,888	47,393	53,367	730	101	589,801
Total ..	..	10,195,050	4,306,833	3,359,125	2,751,145	2,057,931	3,593,230	9,423	26,272,737

3. **Principal Fruit Crops.**—The area, production and gross value of the principal fruit crops during the periods 1945–46 to 1949–50, compared with the average for the ten seasons 1929–30 to 1938–39, and the average of ten seasons 1940–41 to 1949–50, are shown hereunder :—

PRINCIPAL FRUIT CROPS : AREA, PRODUCTION AND GROSS VALUE OF PRODUCTION.

Year.	Apples.	Apricots.	Bananas.	Citrus Fruits.	Peaches.	Pears.	Plums and Prunes.
			AREA, BEARING AND NON-BEARING (ACRES).				
Average, 1929–30 to 1938–39	100,258	11,632	23,353	50,706	23,390	20,725	15,912
1945–46	84,377	12,445	26,587	51,217	26,588	22,616	12,413
1946–47	83,617	13,184	30,222	52,269	28,196	23,030	12,670
1947–48	84,199	13,179	36,591	54,619	28,474	22,785	12,579
1948–49	83,802	13,564	32,263	56,126	28,353	22,634	12,540
1949–50	81,744	13,277	29,669	57,367	27,318	21,579	12,226
Average, 1940–41 to 1949–50	85,819	12,705	26,440	51,676	27,010	22,595	12,662
			PRODUCTION ('000 BUSHELS).				
Average, 1929–30 to 1938–39	10,013	1,014	2,270	5,011	1,984	2,130	948
1945–46	15,267	1,107	2,621	5,249	2,095	2,644	949
1946–47	10,293	1,239	2,791	5,547	2,432	3,607	743
1947–48	14,292	1,551	2,965	6,770	2,962	3,240	1,129
1948–49	8,313	1,347	3,093	7,056	2,204	3,125	820
1949–50	9,225	1,463	3,381	6,394	2,303	2,861	806
Average, 1940–41 to 1949–50	11,609	1,273	2,685	5,685	2,327	2,905	910
			GROSS VALUE OF PRODUCTION. (£.)				
Average, 1929–30 to 1938–39	2,676,915	326,539	1,072,459	1,807,894	679,158	558,872	286,018
1945–46	4,836,299	894,454	3,256,522	4,084,870	1,293,878	1,167,671	701,581
1946–47	4,080,940	885,215	3,039,808	4,335,412	1,338,809	1,501,942	609,601
1947–48	6,716,911	1,190,253	3,355,820	4,314,866	1,557,541	1,443,751	714,632
1948–49	5,381,065	982,987	3,403,546	4,019,784	1,342,490	1,585,031	612,013
1949–50	7,709,500	1,327,785	3,879,916	5,350,266	1,687,135	2,107,553	786,212
Average, 1940–41 to 1949–50	4,545,533	849,744	2,482,511	3,900,096	1,245,639	1,278,427	607,277

4. **Production of Jams and Jellies and Preserved Fruit.**—Considerable quantities of fruit are used in the production of jams and jellies and preserved fruit in Australia, details of the output of these products being shown below for the years 1938–39 and 1946–47 to 1950–51.

PRODUCTION OF JAMS AND JELLIES AND PRESERVED FRUIT : AUSTRALIA.

('000 lb.)

Particulars.	1938–39.	1946–47.	1947–48.	1948–49.	1949–50.	1950–51. (*a*)
Jams and Jellies ..	84,916	160,064	198,454	132,951	134,577	118,440
Fruit Preserved in Liquid—						
Apricots ..	12,447	12,530	21,149	22,210	30,957	23,300
Peaches ..	86,176	70,568	77,332	56,641	61,417	65,498
Pears	27,344	40,615	42,082	50,298	48,665	51,996
Pineapples ..	14,356	6,267	21,237	20,834	31,442	29,747
Small Fruit ..	1,299	1,475	1,615	2,248	3,024	4,320
Other (*b*) ..	9,110	6,267	12,858	13,687	16,516	23,342
Total (*b*) ..	150,732	137,722	176,273	165,918	192,021	198,203
Apples, Preserved ..	(*c*)	20,773	12,778	21,227	19,240	23,855

(*a*) Subject to revision. (*b*) Excludes preserved apples. (*c*) Not available.

The recorded consumption of fruit in factories for all purposes, including that used for juice and cordial manufacture and for drying, was 181,772 tons during the year 1949–50.

5. **Consumption of Fruit and Fruit Products.**—Details of the estimated consumption of fruit and fruit products per head of population are shown below for each year 1947–48 to 1950–51 compared with the average for the years 1936–37 to 1938–39.

ESTIMATED CONSUMPTION OF FRUIT AND FRUIT PRODUCTS PER HEAD OF POPULATION: AUSTRALIA.

(lb.)

Commodity.	Average, 1936–36 to 1938–39.	1947–48.	1948–49.	1949–50.	1950–51.(a)
Fresh Fruit—Citrus ..	31.9	38.9	39.3	33.9	37.4
Other (a) ..	94.0	92.8	83.4	77.7	79.0
Jam	11.4	14.2	11.0	11.7	11.3
Dried Fruit—Vine ..	5.2	5.8	7.5	6.5	8.5
Tree ..	2.9	2.6	2.7	1.9	2.0
Canned Fruit	10.7	11.0	13.3	12.2	11.0
Total Fresh Fruit Equivalent ..	173.7	183.9	183.5	164.2	173.4

(a) Subject to revision. (b) Includes table grapes.

6. **Imports and Exports of Fruit.**—(i) *General.* The imports of fresh fruits into Australia are negligible, whilst those of dried fruits consist mainly of dates.

A considerable export trade in both fresh and dried fruits is carried on by Australia with oversea countries. The values of the shipments in 1949–50 amounted to £3,933,663 and £2,888,259 respectively. Apples formerly constituted the bulk of the fresh fruit exported, although the exports of citrus fruits and pears were fairly considerable. Shipments of raisins and currants have increased greatly since 1914–15 and are mainly responsible for the growth in the dried fruits exports, although dried tree fruits also figure amongst the exports. Owing to shipping difficulties and other factors the exports of fresh fruit were seriously curtailed during the 1939–45 War.

(ii) *Fresh Fruits.* Particulars of the Australian oversea trade in fresh fruits are shown in the following table :—

FRESH FRUITS: IMPORTS AND EXPORTS, AUSTRALIA.

Year.	Imports.		Exports.		Net Exports.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
	Centals.	£	Centals.	£	Centals.	£
Average, 1934–35 to 1938–39	45,554	20,289	2,520,842	1,981,483	2,475,288	1,961,194
1945–46 ..	1,088	3,110	813,179	1,264,681	812,091	1,261,571
1946–47 ..	5,459	3,703	673,485	1,549,890	668,026	1,546,187
1947–48 ..	500	995	1,899,863	3,886,059	1,899,363	3,885,064
1948–49 ..	754	1,502	1,509,330	3,116,571	1,508,576	3,115,069
1949–50 ..	354	669	1,901,988	3,933,663	1,901,634	3,932,994

(iii) *Exports of fresh Apples, Pears and Citrus Fruits.* The quantity and value of fresh apples, pears and citrus fruits exported during each of the five years ended 1949–50, compared with the average for the five years 1934–35 to 1938–39, are shown in the following table :—

FRESH APPLES, PEARS AND CITRUS FRUITS : EXPORTS FROM AUSTRALIA.

Year.	Apples.		Pears.		Citrus Fruits.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
	Centals.	£	Centals.	£	Centals.	£
Average, 1934–35 to 1938–39	1,928,282	1,396,083	284,203	268,347	255,538	233,552
1945–46 ..	698,185	1,010,243	20,938	54,412	68,468	135,027
1946–47 ..	387,458	766,007	80,736	176,490	167,910	438,627
1947–48 ..	1,407,789	2,694,789	179,782	365,842	273,257	603,628
1948–49 ..	888,833	1,771,372	279,373	603,524	292,796	552,023
1949–50 ..	1,264,313	2,437,843	328,545	638,726	269,672	649,694

(iv) *Dried Fruits.* The quantity and value of oversea imports and exports of dried fruits, other than raisins and currants, for the five years ended 1949–50, compared with the average for the five years 1934–35 to 1938–39, are shown below. Normally, the bulk of the imports consists of dates obtained almost entirely from Iraq. This trade was prohibited during the war years but has since been resumed.

DRIED FRUITS(*a*) : IMPORTS AND EXPORTS, AUSTRALIA.

Year.	Imports.		Exports.		Net Exports.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
	'000 lb.	£	'000 lb.	£	'000 lb.	£
Average, 1934–35 to 1938–39	12,225	80,121	4,315	117,222	−7,910	37,101
1945–46 ..	7,556	150,100	3,078	198,087	−4,478	47,987
1946–47 ..	7,070	150,745	4,214	273,502	−2,856	122,757
1947–48 ..	11,835	253,971	4,508	294,932	−7,327	40,961
1948–49 ..	11,316	239,857	4,796	343,067	−6,520	103,210
1949–50 ..	10,125	212,216	10,218	660,635	93	448,419

(*a*) Excludes raisins and currants referred to separately under Vineyards, § 16, par. 6.

NOTE.—Minus sign (−) denotes net imports.

(v) *Jams and Jellies.* The exports of jams and jellies have reached large proportions since the 1939–45 War. In 1949–50 shipments totalled 65,229,000 lb. valued at £2,473.095 compared with average exports of 7,118,000 lb. valued at £137,707 during the five years ended 1938–39. Small quantities of jam were imported before the war but the quantities involved now are negligible. Particulars of imports and exports during each of the five years ended 1949–50, compared with the average for the five years 1934–35 to 1938–39, are as follows,

JAMS AND JELLIES : IMPORTS AND EXPORTS, AUSTRALIA.

Year.	Imports.		Exports.		Net Exports.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
	'000 lb.	£	'000 lb.	£	'000 lb.	£
Average, 1934–35 to 1938–39	69	2,407	7,118	137,707	7,049	135,300
1945–46 ..	..	..	42,183	1,310,412	42,183	1,310,412
1946–47 ..	..	3	65,434	2,206,696	65,434	2,206,693
1947–48 ..	1	136	59,642	2,232,168	59,641	2,232,032
1948–49 ..	85	6,666	53,603	2,049,224	53,518	2,042,558
1949–50 ..	30	2,178	65,229	2,473,095	65,199	2,470,917

(vi) *Preserved Fruit.* The total quantity of fruit preserved in liquid, or partly preserved in liquid or pulped, imported into Australia during 1949–50 was 2,987,923 lb. valued at £186,355. Large quantities of fruit preserved in liquid are normally exported from Australia, the value of shipments in 1938–39 amounting to £1,271,525. Exports were considerably reduced during the recent war owing to the prior claims on Australia's output by the Australian and Allied Services based on Australia, but in 1949–50 the value of exports had increased to £4,017,962. In addition, the exports of pulped fruits during 1949–50 amounted to 15,060,631 lb. valued at £566,216. Particulars of the quantities and values of fruit preserved in liquid exported from Australia for each of the five years ended 1949–50 compared with the average for the five years 1934–35 to 1938–39 are shown in the following table :—

FRUIT PRESERVED IN LIQUID : EXPORTS FROM AUSTRALIA.

Year.	Apricots.	Peaches.	Pears.	Other.	Total.
	QUANTITIES ('000 lb.).				
Average, 1934–35 to 1938–39	8,084	34,588	21,220	5,004	68,896
1945–46 ..	2,999	18,208	7,404	8,171	36,782
1946–47 ..	5,645	43,331	19,259	3,454	71,689
1947–48 ..	5,451	44,553	23,480	11,327	84,811
1948–49 ..	10,656	55,027	30,205	18,353	114,241
1949–50 ..	9,171	31,589	33,243	27,166	101,169
	VALUES (£).				
Average, 1934–35 to 1938–39	133,889	501,138	335,170	104,830	1,075,027
1945–46 ..	72,323	393,467	154,393	272,677	892,860
1946–47 ..	167,400	1,190,687	636,130	120,031	2,114,248
1947–48 ..	172,630	1,325,209	765,297	502,655	2,765,791
1948–49 ..	390,290	1,742,461	1,122,518	876,295	4,131,564
1949–50 ..	339,610	1,160,623	1,082,749	1,434,980	4,017,962

7. **Marketing of Apples and Pears.**—(i) *Apple and Pear Organization Act* 1938–1948. This Act, which was passed by the Commonwealth Parliament at the request of the apple and pear industry, provides for the establishment of an Australian Apple and Pear Board for the purpose of organizing and controlling the export trade in fresh apples and pears.

The Board originally comprised sixteen members but by an amendment of the Act in 1947 the members were reduced to twelve, representative of the following interests :—one member to represent the Commonwealth Government ; seven members to represent growers of apples and pears on the basis of two for Tasmania and one each for the other

States; three members to represent exporters of apples and pears on the basis of one each for Tasmania and Western Australia and one for the other States; and one member to represent the employees engaged in the apple and pear industry.

The Board has power to regulate the shipment of apples and pears from Australia by licensing exporters and issuing permits to export. Power is also given to determine export quotas and to allocate the consignments from each State. The Board may appoint persons to represent it overseas.

The Apple and Pear Publicity and Research Act 1938 and the related Apple and Pear Tax Acts, referred to in earlier issues of the Official Year Book, have now been repealed by the 1947 amendment to the Apple and Pear Organization Act. The latter Act was subject to a further minor amendment in 1948.

(ii) *Apple and Pear Export Charges Act* 1938–1947. This Act provides for the imposition of a levy on all apples and pears exported from Australia for the purpose of providing the funds necessary to meet the administrative and other expenses of the Board.

(iii) *Apple and Pear Acquisition.* Exports of apples and pears were seriously curtailed as a result of the war, and during the 1940 to 1948 seasons crops were acquired and marketed under the National Security (Apple and Pear Acquisition) Regulations and Regulations issued under the Defence (Transitional Provisions) Act 1946. During the 1949 season in Tasmania and the 1949 and 1950 seasons in Western Australia the crops were marketed under State schemes, but crops in all States have since been marketed on a normal commercial basis. Details of the acquisition scheme which operated during the 1940 to 1948 seasons will be found on pages 1003 and 1004 of Official Year Book No. 38 and in earlier issues of the Year Book.

8. **Oversea Marketing of Canned Fruit.**—(i) *The Canned Fruits Export Control Act* 1926–1938. This legislation was introduced at the request of canners and representative organizations of fruit-growers with the object of organizing the oversea marketing of canned fruit. The original Act referred to canned apricots, peaches and pears only, but canned pineapples and canned fruit salads consisting of not less than 75 per cent. of specified fruits were subsequently brought within the scope of the Board's operations. The personnel of the Australian Canned Fruits Board consists of one representative each from proprietary and privately owned canneries, co-operative canneries, State-controlled canneries, pineapple interests and the Commonwealth Government. No canned fruits to which the Act applies are permitted to be exported except under a licence issued in accordance with conditions recommended by the Board. The system of marketing adopted by the Board, including the fixation of minimum selling prices overseas, the appointment of a London agency and the engaging in oversea trade publicity, has resulted in the satisfactory disposal of the annual exportable surplus of canned fruits. The distribution of canned fruits has been widened and the exporting side of the industry placed on a sounder basis through the Board's operations.

(ii) *The Canned Fruits Export Charges Act* 1926–1938. This Act provides for the imposition of a levy on the export of canned fruits to meet the administrative and other commitments of the Board. The rate of the levy is fixed by regulation from time to time. An amendment in 1929 provided for certain exemptions from payment of the levy when recommended by the Board.

(iii) *War-time Contracts.* During 1940 and 1941 purchases of canned fruit were made by the British Ministry of Food at prices fixed on an f.o.b. basis, Australian ports. From 1942 to 1945 the requirements of the Defence Services and other Governmental orders necessitated official control of disposals, and commercial shipments of canned fruits virtually ceased, while quantities available for civilian consumption were considerably below normal requirements. In 1946 commercial shipments were resumed and approximately one million cases of canned fruits were exported to the United Kingdom under an official arrangement which was virtually on a merchant-to-Government basis. A similar arrangement has operated in respect of exports to the United Kingdom during each of the years 1947 to 1951 inclusive.

§ 18. Vegetables for Human Consumption.

1. **Area and Production of Fresh Vegetables.**—The pre-war production of vegetables in Australia, which had been sufficient to meet the needs of the population, was, generally speaking, supplied by growers whose holdings were adjacent to centres of consumption. These areas were classified for statistical purposes as market gardens and were tabulated as such. Details of the areas planted and production respecting individual kinds of vegetables were not collected.

Consequent upon the outbreak of war in the Pacific, extensive development of vegetable growing in Australia was undertaken, resulting in an expansion from the peace-time need of about 100,000 acres to more than 200,000 acres, exclusive of potatoes, onions, navy beans and blue peas, details of whose production are referred to in §§ 10, 11 and 12 of this Chapter.

Since the close of the war there has been a considerable reduction in vegetable growing and the area of the crops dealt with in this section declined from the war-time peak of 240,282 acres in 1944–45 to 141,082 acres in 1949–50.

Details of the area and production of vegetables for the seasons 1947–48 to 1949–50 are given in the following table. Similar details for the years 1942–43 to 1943–44 were given in earlier issues of the Year Book (No. 36, p. 839 and No. 37, p. 956). Owing to the difference in collection already referred to, comparable figures prior to 1942–43 are not available.

FRESH VEGETABLES(a) FOR HUMAN CONSUMPTION : AUSTRALIA.

Vegetable.	1947–48.		1948–49.		1949–50.	
	Area Sown.	Production.	Area Sown.	Production.	Area Sown.	Production.
	Acres.	Tons.	Acres.	Tons.	Acres.	Tons.
Beans, French	16,527	18,466	16,644	18,289	15,848	15,745
Beetroot	2,151	12,454	2,258	13,468	1,627	10,652
Cabbages and Brussels Sprouts	7,244	76,285	7,377	80,456	7,358	81,531
Carrots	4,794	30,880	4,906	37,653	4,740	30,962
Cauliflowers ..	6,942	79,103	7,059	85,974	7,118	84,531
Lettuces	3,958	14,101	3,834	14,942	3,293	12,045
Parsnips	1,885	13,926	1,748	13,298	1,487	11,242
Peas, Green ..	51,058	34,850	49,036	30,670	40,134	31,105
Pumpkins	23,120	60,024	24,596	67,213	25,216	67,278
Tomatoes	19,235	92,516	18,408	98,609	18,943	101,436
Turnips, Swede and White	5,828	25,039	8,031	36,863	6,449	28,412
All Other	13,689	..	12,367	..	8,869	..
Total ..	156,431	..	156,264	..	141,082	..

(a) Excludes potatoes, onions, blue peas and navy beans.

2. **Production of Canned Vegetables.**—As a corollary to the development mentioned above, a considerable expansion occurred in the processing of vegetables. New canning factories were established in many parts of the Commonwealth, and a new industry for the processing of vegetables by the dehydration method was commenced. After the close of hostilities there was a sharp decline in the output of canned vegetables but some recovery has been evident since 1947–48. Quantities canned in each post-war year have been considerably higher than in 1938–39.

The development in the vegetable-canning industry is indicated in the table below :—

PRODUCTION OF CANNED VEGETABLES : AUSTRALIA.

('000 lb.)

Vegetable.	1938–39.	1945–46.	1946–47.	1947–48.	1948–49.	1949–50.	1950–51. (a)
Asparagus ..	2,150	2,178	2,568	2,327	3,985	4,506	3,127
Beans	2,491	10,058	12,224	11,306	17,738	27,874	26,812
Beetroot ..	(b)	10,903	2,593	764	1,492	2,084	3,485
Cabbages.. ..	(b)	1,919	1,022	112	(b)	(b)	(b)
Carrots	(b)	18,312	3,612	982	2,367	2,510	4,155
Cauliflower ..	198	(b)	(b)	(b)	(b)	(b)	(b)
Peas (Green) ..	1,861	23,033	21,787	22,650	15,222	21,841	19,045
Silver Beet ..	(b)	2,453	9	(b)	(b)	(b)	(b)
Tomatoes ..	1,578	4,097	5,385	3,029	3,932	6,934	5,810
Other (c) ..	(d) 1,977	(d)34,009	(d) 9,086	(d) 5,161	(d) 6,543	(d)7,785	(d)14,055
Total ..	10,255	106,962	58,286	46,331	51,279	73,534	76,489

(a) Subject to revision. (b) Included in "Other Vegetables". (c) Includes Parsnips, Potatoes, Turnips, Sweet Corn, etc. (d) Includes particulars of vegetables marked (b).

3. **Production of Dehydrated Vegetables.**—The dehydration of vegetables was not undertaken in Australia until after the outbreak of war in the Pacific towards the close of 1941. With the termination of Commonwealth contracts for dehydrated vegetables in October, 1946, a number of plants ceased to operate and output for commercial purposes in the remaining plants was drastically curtailed. Details of the quantities of fresh vegetables used for dehydration and the output of dehydrated vegetables during the years 1942–43 to 1946–47 were shown on page 957 of Official Year Book No. 37.

4. **Imports and Exports of Vegetables.**—Oversea exports of pulse and fresh vegetables during 1949–50 consisted of :—Pulse, 6,081 tons, £288,109 ; onions, 5,901 tons, £161,204 ; potatoes, 15,183 tons, £340,747 ; other vegetables, 2,643 tons, £144,573. Imports totalled 9,792 tons, valued at £532,977, of which pulse comprised 9,778 tons, valued at £528,364.

In 1949–50 exports of vegetables preserved in liquid consisted of :—Peas, 3,356,539 lb., £142,243 ; tomatoes, 867,254 lb., £42,545 ; other vegetables, 25,170,187 lb., £1,076,126.

5. **Consumption of Vegetables.**—Details of the estimated consumption of vegetables for a series of years ending with 1950–51 are shown in Chapter XXIX.—Miscellaneous of this Year Book.

§ 19. Minor Crops.

1. **General.**—There are many other crops which do not occupy so prominent a position as those already enumerated. Some of the more important of these are included under the headings—Tobacco, Hops, Flax, Peanuts, Cotton and Sorghum.

2. **Grass Seed.**—Particulars of the area of grass crops grown for seed cannot be accurately determined as seed is obtained from certain crops such as clover, lucerne, etc., at a second cutting. The production of seed recorded in 1949–50 was :—clover, 25,187 cwt. ; lucerne 13,139 cwt. ; other grass seed, 32,492 cwt. ; a total of 70,818 cwt.

3. **Other Grains from Sorghums.**—In addition to the grass seed referred to in paragraph 2 above and grain sorghum in § 9, a considerable area has been sown to Japanese Millet, Panicum and Setaria. Particulars of the area and production for the years 1944–45 to 1949–50 are given in the table following.

SORGHUMS: AREA AND PRODUCTION OF GRAIN, AUSTRALIA.

Year.	Japanese Millet.(*a*)		Panicum, Millet and Setaria.(*b*)	
	Area.	Production.	Area.	Production.
	Acres.	Tons.	Acres.	Bus.
1944–45	2,948	964	16,570	178,612
1945–46	2,628	1,526	22,172	325,194
1946–47	1,393	678	39,372	407,482
1947–48	748	225	16,086	236,430
1948–49	823	254	14,103	250,614
1949–50	909	310	14,832	265,734

(*a*) Victoria only. (*b*) Queensland only.

4. **Tobacco.**—(i) *General.* Tobacco-growing years ago promised to occupy an important place amongst the agricultural industries of Australia. As early as the season 1888–89, the area of this crop amounted to 6,641 acres, of which 4,833 were in New South Wales, 1,685 in Victoria, and 123 in Queensland. This promise was, however, not fulfilled, and after numerous fluctuations, in the course of which the Victorian area rose in 1895 to over 2,000 acres, and that in Queensland to over 1,000 acres, the total area declined considerably.

(ii) *States, Area and Production.* The expansion of the tobacco-growing industry was hoped for as a war-time measure but, although the acreage planted increased slightly during the first three war years, it has since decreased considerably, being in 1949–50 only 41 per cent. of the annual average for the ten years ended 1938–39. Owing to improvement in average yields, however, the production of dried leaf in 1949–50 was 81 per cent. of the pre-war average. The area of 4,584 acres and production of 4,138,000 lb. represented a decrease on 1941–42 of 4,236 acres and of 3,903,000 lb.

In the following table particulars of the area and production of tobacco are given by States for each of the years 1945–46 to 1949–50, together with averages for the ten-year periods ended 1938–39 and 1949–50 :—

TOBACCO: AREA AND PRODUCTION.

Year.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Total.
AREA (ACRES).							
Average, 1929–30 to 1938–39 ..	1,274	6,237	2,865	292	502	89	11,259
1945–46	370	1,408	1,897	..	296	..	3,971
1946–47	402	1,186	2,255	..	649	..	4,492
1947–48	414	958	1,912	..	559	..	3,843
1948–49	428	994	1,678	..	620	..	3,720
1949–50	327	919	2,677	..	661	..	4,584
Average, 1940–41 to 1949–50 ..	577	1,497	2,642	..	935	2	5,653
PRODUCTION OF DRIED LEAF ('000 lb.).							
Average, 1929–30 to 1938–39. ..	860	2,354	1,400	83	361	56	5,113
1945–46	365	431	1,411	..	298	..	2,505
1946–47	399	1,087	1,969	..	539	..	3,994
1947–48	338	130	1,581	..	435	..	2,484
1948–49	402	793	1,626	..	595	..	3,416
1949–50	299	668	2,540	..	631	..	4,138
Average, 1940–41 to 1949–50 ..	524	967	1,927	..	731	1	4,150

(iii) *Australian Tobacco Board.* The Australian Tobacco Board was constituted in May, 1941 under the National Security (Australian Tobacco Leaf) Regulations for the purpose of controlling the marketing of Australian-grown tobacco leaf, which was required to be submitted to the Board for appraisement. The Board ceased to function towards the end of 1948 and subsequent crops have been marketed at open auction in the respective States.

(iv) *Tariff Board Inquiries.* The tobacco industry has been the subject of a number of investigations. The Tariff Board inquired into the industry in 1926, 1931 and 1940 and reports were issued.

(v) *Tobacco Inquiry Committee.* The Tobacco Inquiry Committee, which was appointed by the Commonwealth Government to investigate certain aspects of the industry in North Queensland, presented its report in 1933. Recommendations included that for payment of a sum of £20,000 annually for a period of five years to assist the States to continue economic and scientific investigations. This recommendation was adopted and the distribution was spread between the years 1934–1938 as follows :—£5,000 to the Council for Scientific and Industrial Research (now the Scientific and Industrial Research Organization), £3,750 to each of the States of New South Wales, Victoria and Queensland, and £1,250 each to South Australia, Western Australia and Tasmania.

A further grant of £62,500, which was increased by £11,250 in 1941, was allotted by the Commonwealth Government to be paid periodically between the years 1939 to 1943. The amount of £73,750 was allocated as follows :—Council for Scientific and Industrial Research, £25,000, and £10,000 annually among the States for the years 1939 and 1941 to 1943, and £8,750 for 1940. In August, 1946 the Commonwealth Cabinet approved a grant of £10,000 per annum for five years on a £ for £ basis to be allocated among producing States for experimental and demonstration work in connexion with tobacco leaf production ; particularly in regard to control and elimination of diseases and pests. The annual grant of £10,000 has been allocated to States on the following basis :—Queensland, £3,750 ; New South Wales, £1,500 ; Victoria, £2,250 ; Western Australia, £2,500.

The Scientific and Industrial Research Organization is investigating diseases affecting the tobacco plant, including work on disease-resisting varieties, and is making tests of smoking quality. In spite of delays due to the war, the Organization has been successful in discovering effective means of preventing blue mould, which has seriously retarded the development of the industry. The States are carrying out field investigations on disease resistance, selection, yield and quality improvement, and are conducting instructional, demonstrational and field experimental work.

(vi) *Tobacco Factories.* In 1949–50 the quantity of stemmed leaf used in tobacco factories in Australia amounted to 27.4 million lb. of which 3.3 million was of local origin the balance being imported, chiefly from the United States of America.

(vii) *Oversea Trade.* Imports of tobacco and manufactures thereof into Australia during 1949–50 were valued at £12,394,839, including 24,124,967 lb. of unmanufactured tobacco valued at £6,887,766. Exports of tobacco during 1949–50 were valued at £308,823.

5. **Hops.**—Hop-growing in Australia is practically confined to Tasmania and some of the cooler districts of Victoria, the total area for 1949–50 being 1,593 acres, of which 1,315 acres were in Tasmania, and 278 acres in Victoria. A small area was also grown in Western Australia, but the details are not available for publication. The Tasmanian area, though still small, has increased during the present century, the total for 1901–2 being 599 acres. The cultivation of hops was much more extensive in Victoria some 60 years ago than at present, the area in 1883–84 being 1,758 acres.

The production of hops in Australia is insufficient to meet local requirements, and additional supplies are imported to meet the needs of the brewing industry. In the following table details of the production, imports and exports of hops and the quantity of hops used in breweries are shown for each of the years 1945–46 to 1949–50 in comparison with the average for the five years ended 1938–39.

HOPS: PRODUCTION AND DISPOSAL, AUSTRALIA.

Year.	Production.		Imports.	Exports.	Net Available Supplies. (a)	Quantity used in Breweries.
	Quantity.	Gross Value.				
	Cwt.	£	Cwt.	Cwt.	Cwt.	Cwt.
Average, 1934–35 to 1938–39	20,576	173,253	1,020	78	21,518	18,992
1945–46	19,835	225,946	2,402	55	22,182	22,436
1946–47	22,278	278,144	4,832	6	27,104	25,813
1947–48	24,449	317,531	9,823	15	34,257	25,050
1948–49	17,073	283,608	6,159	..	23,232	29,543
1949–50	22,993	465,158	12,047	..	35,040	31,997

(a) Disregards movements in stocks.

The Tariff Board conducted an inquiry into the hop-growing industry and issued a report on 12th June, 1945.

6. **Flax.**—For many years flax was grown intermittently in parts of Victoria and unsuccessful attempts were made to introduce its cultivation in some of the other States.

During the 1914–18 War there was an acute shortage of flax fibre and expansion of production was encouraged by the Commonwealth Government. The area sown reached its maximum in 1919–20 at 1,600 acres, but had declined to less than 200 acres in 1928–29. A further attempt to establish the industry was made in 1935 and as a result the area in Victoria had increased to 1,358 acres by 1938–39. Following the outbreak of the 1939–45 War the area sown increased rapidly, reaching over 54,000 acres in 1941–42 and over 61,000 acres in 1944–45. In 1945–46, however, the area sown fell by 32 per cent. to 41,413 acres. Victoria is the chief producing State, but South Australia, Western Australia and Tasmania also contributed to the war-time expansion which was necessary to ensure Australia's supplies of flax and, in accordance with an agreement negotiated between the two Governments, to provide an export to assist in meeting the urgent needs of the United Kingdom. The arrangement concluded on 31st October, 1946, and the area under flax for fibre declined to 18,354 acres in 1946–47 and to 9,455 acres in 1949–50.

Details of the area under flax and the production of straw are given in the following table :—

FLAX FOR FIBRE: AREA AND PRODUCTION.

Year.	Victoria.	S. Australia.	W. Aust.	Tasmania.	Total.
AREA (ACRES).					
Average, 1934–35 to 1938–39	1,021	..	..	..	(a) 1,030
1945–46..	26,419	6,292	5,356	3,346	41,413
1946–47..	12,041	2,599	2,940	774	18,354
1947–48..	12,183	3,544	2,063	..	17,790
1948–49..	6,971	3,099	1,816	..	11,886
1949–50..	5,261	1,753	2,441	..	9,455
PRODUCTION (TONS OF STRAW).					
Average, 1934–35 to 1938–39	61	..	..	..	61
1945–46..	18,798	6,969	4,229	1,360	31,356
1946–47..	13,858	4,009	2,108	627	20,602
1947–48..	19,427	6,068	1,694	..	27,189
1948–49..	11,062	3,631	2,213	..	16,906
1949–50..	6,925	1,511	2,629	..	11,065

(a) Includes nine acres of unproductive flax in Queensland.

Although the growing of flax on a large scale was established as a war-time measure, it is proposed to continue the industry at a level sufficient to meet local requirements, providing that it can be efficiently maintained in competition with other countries. To stimulate the production of flax fibre, on 16th July, 1950, the Flax Canvas Bounty Act was passed, authorizing the payment of £60 per ton of scutched flax fibre used. Also, for the season 1951, the price of flax straw was increased from £9 to £13 10s. per ton of standard straw.

The industry is under the control of the Flax Production Committee appointed under the Supply and Development (Flax Production) Regulations. The Committee has, amongst other things, organized the growing and harvesting of the crop and the processing of the flax, as well as disposing of the resultant products to spinners and others in Australia and overseas. In 1943–44 in the four producing States there were 31 mills under the control of the Committee. The number of flax mills operating in 1949–50 was sixteen.

Prior to 1948–49, the growing of flax for oil had not been developed extensively in Australia, and in 1947–48 the area devoted to this purpose was only 1,844 acres, from which 273 tons of linseed were obtained. Action is being taken to develop this industry, however, and in 1949–50 the area had risen to 28,855 acres. Up to the present, crops are mainly being held for seed purposes with a view to further expansion of the industry, the ultimate objective being the production of sufficient linseed to meet Australia's total oil requirements.

The flax industry was the subject of two investigations, one in 1933 and the other in 1936 (*see* Official Year Book No. 32, p. 658).

7. **Peanuts.**—The production of peanuts, or groundnuts, in Australia is mainly confined to Queensland, although small quantities are grown in New South Wales and Western Australia. Details of the area and production are given in the table below.

PEANUTS : AREA AND PRODUCTION, AUSTRALIA.

Year.	Area (Acres).				Production (Tons).			
	N.S.W.	Q'land.	W. Aust.	Total. (*a*)	N.S.W.	Q'land.	W. Aust.	Total. (*a*)
Average, 1929–30 to 1938–39 ..	29	8,320	100	8,449	(*b*) 11	3,715	24	3,750
1945–46 ..	17	25,203	13	25,233	7	13,298	4	13,309
1946–47 ..	17	38,800	4	38,821	23	22,750	2	22,775
1947–48 ..	97	34,645	28	34,770	41	15,804	3	15,848
1948–49 ..	129	24,290	32	24,451	67	9,928	14	10,009
1949–50 ..	133	17,697	27	17,857	52	7,907	9	7,968
Average, 1940–41 to 1949–50 ..	42	20,693	22	20,757	20	10,204	7	10,231

(*a*) Excludes Northern Territory. (*b*) Average for five years.

The gross value of the 1949–50 crop was £414,043.

In addition to the production shown above, considerable quantities of peanut kernels were formerly imported annually, chiefly from India, for oil expression purposes. This was suspended from 1946 to 1949, but has since been resumed on a smaller scale. Details of Australia's available supplies in terms of kernels are given for the years 1938–39 and 1946–47 to 1950–51.

PEANUTS (IN TERMS OF KERNELS) : AVAILABLE SUPPLIES, AUSTRALIA.

(Tons.)

Particulars.	1938–39.	1946–47.	1947–48.	1948–49.	1949–50.	1950–51.
Production(*a*) ..	3,500	8,878	15,183	10,565	6,673	5,312
Imports	2,270	..	5	3	281	1,488
Total ..	5,770	8,878	15,188	10,568	6,954	6,800

(*a*) Crop harvested in April-May of the preceding year and available for consumption during year shown.

8. **Broom Millet.**—The total area devoted to broom millet in 1949–50 was 3,100 acres, of which 2,815 acres were in New South Wales, 94 in Victoria and 191 in Queensland. The total production from these areas was 16,210 bushels of grain and 19,168 cwt. of fibre.

9. **Nurseries.**—In all the States fairly large areas are occupied as nurseries. The acreages under flowers, fruit-trees, etc., in 1949–50 in the various States were as follows :— New South Wales, 1,216 acres ; Victoria, 3,266 acres ; Queensland, 193 acres ; South Australia, 136 acres ; Western Australia, 252 acres ; Tasmania, 77 acres ; and Australian Capital Territory, 5 acres ; a total for Australia of 5,145 acres.

10. **Cotton.**—(i) *General.* The production of cotton in Australia is restricted to Queensland, where cultivation began in 1860, and ten years later the area cropped had increased from 14 acres to over 14,000 acres. The reappearance of American cotton in the European market on the conclusion of the Civil War gave a severe setback to the new industry, and the area declined continuously until 1888, when only 37 acres were planted. Later on the industry was revived, and manufacturing on a small scale was undertaken on two separate occasions at Ipswich, but low prices over a period of years checked development.

(ii) *Bounties, etc.* In 1913 the Queensland Government made an advance of 1½d. per lb. on seed cotton and ginned it on owner's account, the final return being equal to about 1¾d. per lb. The rise in price enabled the Government to offer a guarantee of 5½d. per lb. for seeded cotton of good quality for the three years ended 31st July, 1923, and the areas picked increased from 166 acres in 1920 to 50,186 acres in 1924. Guarantees were continued until 1926, when the Commonwealth Government granted a bounty varying from ¾d. to 1½d. per lb. according to grade. In addition, the cotton-manufacturing industry received a graduated bounty on all cotton yarn manufactured in Australia which contained 50 per cent. of home-grown cotton. This bounty, however, ceased to operate after 30th June, 1932. The cotton-growing industry was further assisted by the Bounty Act of 1934, which extended the period to 1940 at varying rates of bounty.

The Raw Cotton Bounty Act 1940 provided an extension of assistance until 31st December, 1946. The Act was amended in August, 1946 to provide a guaranteed net average return to cotton-growers of 15d. per lb. of raw cotton for five years from 1st January, 1947. It has been superseded by the Cotton Bounty Act 1951, which guarantees a net average return of 9½d. per lb. of seed cotton for five years from 1st January, 1951.

The Tariff Board carried out an investigation into the cotton-growing industry in 1945.

(iii) *Expansion of the Cotton-growing Industry.* Australia produces only portion of its requirements of raw cotton, the balance being obtained chiefly from the United States of America, India, Pakistan and Brazil. Efforts have been directed towards increasing production by an extension of area and the introduction of irrigation methods, but the results so far have not met with much success. Production was increased during the war years but has since fallen away. The expansion of the industries connected with the spinning and weaving of cotton is referred to in Chapter XXIV.—Manufacturing Industry.

The area under cultivation and the production in Queensland for the years 1946 to 1949 are shown hereunder together with the averages for the periods of ten years ended 1939 and 1949 :—

COTTON : AREA AND PRODUCTION IN QUEENSLAND.

Season ended September—	Area Sown.	Production of Cotton.				Average Yield per Acre Sown.	
		Unginned.		Ginned.	Ginned-Equivalent in Bales. (a)	Unginned.	Ginned.
		Quantity.	Gross Value.				
	Acres.	'000 lb.	£	'000 lb.	Bales.	lb.	lb.
Average, 1930 to 1939 ..	58,436	16,617	291,106	5,564	11,181	284	95
1946	7,902	3,022	65,552	1,139	2,372	382	144
1947	8,460	2,064	46,213	762	1,531	244	90
1948	6,222	1,821	47,918	713	1,439	293	115
1949	2,688	719	26,322	255	522	267	95
Average, 1940 to 1949 ..	25,102	6,953	145,550	2,081	4,199	277	83

(a) Bales of approximately 500 lb.

(iv) *Consumption of Raw Cotton.* The following table shows the expansion which has taken place in the consumption of raw cotton in Australia since 1938–39.

RAW COTTON : PRODUCTION, IMPORTS AND CONSUMPTION, AUSTRALIA. ('000 lb.)

Year.	Production.	Imports.	Total.	Consumption in Cotton Mills.
Average, 1936–37 to 1938–39 ..	5,180	9,882	15,062	12,523
1945–46	651	26,494	27,145	25,329
1946–47	1,139	34,341	35,480	30,132
1947–48	762	34,114	34,876	31,401
1948–49	713	37,234	37,947	31,077
1949–50	255	28,357	28,612	33,823

11. **Other Crops.**—Miscellaneous small crops grown in Australia include chicory, coffee, cut flowers, herbs, ginger, liquorice and vegetable seeds.

§ 20. Bounties, etc.

NOTE.—*See also* Chapter XVII.—Public Finance, pages 786–7, in this connexion.

1. **Bounties.**—The bounties paid by the Commonwealth Government during the year ended 30th June, 1951, amounted to £110,407, comprising £89,898 under the Tractor Bounty Acts 1939–1947, and £20,509 under the Flax Canvas Bounty Act 1950. This amount refers only to bounties paid under the Bounty Acts and does not include financial assistance given to wheat-growers and other primary producers under other Acts. Particulars of the assistance so rendered by the Commonwealth Government are furnished hereafter. Details of the amounts paid as bounty for the years 1946–47 to 1950–51 are set out in *Primary Industries Bulletin*, 1949–50, No. 44.

2. **Other Financial Assistance to Primary Producers.**—(i) *General.* In addition to the payment of bounties mentioned in the preceding paragraph, financial assistance has been granted by the Commonwealth Government for the relief of wheat-growers, fruit-growers, and other primary producers. The amounts shown exclude such items

as the expenditure on cattle tick control, banana industry, tobacco investigation and apple and pear research, which indirectly benefits the industries concerned, and exclude payments made to the States from loan fund to alleviate hardship suffered by primary producers in consequence of drought. The distribution as bounty, relief or subsidy for 1938–39 and 1946–47 to 1949–50 is as shown in the following table. Details of payments made prior to 1938–39 are given on page 847 of Official Year Book No. 36, while particulars for the years 1939–40 to 1945–46 will be found on page 965 of Official Year Book No. 37.

AMOUNTS PAID BY THE COMMONWEALTH GOVERNMENT AS ASSISTANCE FOR RELIEF OF PRIMARY PRODUCERS.

(£.)

Amounts paid to—	Year.	N.S.W.	Vic.	Q'land.	S. Aust.	W.Aust.	Tas.	A.C.T.	Total.
Wheat-growers as—									
Assistance ..	1938–39	558,489	307,564	70,824	398,559	421,296	(a)51,961	..	1,808,693
Assistance ..	1946–47	334,996	560,244	47,108	417,590	(b)340,968	(a)50,026	..	1,750,932
Relief (Drought)	,,	315,092	150,000	..	66,847	..	..	..	531,939
Assistance ..	1947–48	305,414	261,260	38,842	180,474	(b)155,385	379	..	941,754
Relief (Drought)	,,	494,955	50,000	..	−35	..	..	..	544,920
Assistance (Special Payment) ..	1948–49	..	..	..	..	..	7,875	..	7,875
Relief (Drought)	,,	43	..	..	..	..	..	..	43
Subsidy ..	1949–50	232,654	176,474	91,608	53,944	46,987	20,763	..	622,430
Total 1931–32 to 1949–50	..	12,856,353	8,692,290	1,391,198	8,572,153	8,970,343	715,562	2,954	41,200,853
Fruit-growers— Total 1933–34 and 1934–35 (c)	..	20,763	58,620	2,581	18,374	25,631	134,031	..	260,000
Primary Producers (other than wheat-growers)— Artificial Fertilizer subsidy	1938–39	18,290	76,500	19,020	36,400	43,260	12,460	90	206,020
,, ,,	1946–47	431,702	952,257	108,271	646,546	880,191	155,080	..	d3,174,047
,, ,,	1947–48	461,505	1,217,784	104,089	637,464	1,048,650	151,273	..	e3,620,765
,, ,,	1948–49	435,078	1,201,640	152,068	634,203	1,013,737	100,132	..	f3,536,918
,, ,,	1949–50	331,530	1,537,958	612,530	625,878	1,168,170	161,498	..	g4,437,564
Total 1932–33 to 1949–50	..	2,925,101	8,088,542	1,312,021	4,555,702	6,775,106	1,097,363	370	24,754,205
Dairying Industry	1946–47	1,069,987	2,353,084	1,111,112	322,119	238,453	128,684	..	h5,223,469
Relief (Drought)	,,	143,800	23,803	24,999	4,322	333	..	..	197,257
Dairying Industry	1947–48	2,531,646	3,284,270	1,533,734	787,879	481,569	247,903	..	i8,867,001
Relief (Drought)	,,	11,116	..	..	..	..	..	..	11,116
Dairying Industry	1948–49	1,829,902	1,338,411	825,280	384,938	275,283	140,137	..	j4,802,951
,, ,,	1949–50	2,435,965	2,755,379	1,487,158	631,550	457,558	240,890	..	8,008,500
Relief (Drought)	,,	..	..	10,432	..	..	..	..	10,432
Total 1942–43 to 1949–50	..	13,150,688	17,899,839	11117775	3,155,743	2,314,789	1,189,594	..	48,828,428
Grand Total 1931–32 to 1949–50 ..	..	28,952,905	34,739,291	13823575	16301972	18,085,869	3,136,550	3,324	115043486

(a) Includes special grant to Tasmania. (b) Includes Wheat Acreage Restriction Grant. (c) Growers of apples, pears and mandarins. (d) Includes subsidy payments of £180,049 on nitrogenous fertilizers. (e) Includes subsidy payments of £129,683 on nitrogenous fertilizers. (f) Includes subsidy payments of £163,573 on nitrogenous fertilizers. (g) Includes subsidy payments of £780,794 on nitrogenous fertilizers. (h) Includes £3,454,729 recovered from the United Kingdom Government. (i) Includes £1,849,115 recovered from the United Kingdom Government. (j) Includes £150,000 recovered from the United Kingdom Government.

Minus sign (—) denotes an adjustment due to overpayment in previous years.

(ii) *Wheat-growers.* Details of payments made prior to 1938–39 will be found in Official Year Book No. 36. In 1938–39 a sum of £1,808,693, collected through the medium of a flour tax, was allocated for distribution as relief to wheat-growers.

Allocations to the States for the same purpose during the years 1944–45 to 1948–49 were £1,995,775 in 1944–45, £1,779,238 in 1945–46, £1,747,383 in 1946–47, £985,327 in 1947–48 and £1,319 in 1948–49. The rate of flour tax has been nil since December, 1947.

In addition to the foregoing amounts paid from flour tax, compensation was paid to wheat-growers in Western Australia, where acreage restrictions applied in respect of the 1942–43 to 1945–46 harvests. The amounts so paid during each year 1942–43 to 1947–48 were £535,000, £599,348, £586,964, £243,828, £2,619 and £97 respectively.

(iii) *Artificial Fertilizers Subsidy.* Prior to the 1939–45 War, assistance was given to primary producers, other than wheat-growers, in the form of a subsidy on artificial fertilizers generally; subject to certain provisions, the rate was 15s. for each ton of artificial manure used in the production of primary produce, but in 1936–37 this was reduced to 10s. per ton. The payment of this subsidy ceased on 30th June, 1939.

Because of the substantial increases in the price of superphosphate and their effect on the efficiency of the farming industry, the Commonwealth Government introduced a bounty on superphosphate produced and sold in Australia after 1st July, 1941. The rate of bounty was fixed at 25s. per ton, payable to manufacturers, who were required to adjust their prices so that consumers received the full benefit of the subsidy. From July, 1942 to September, 1948 a revised basis of subsidy payments operated under which payment was made to manufacturers under a system designed to stabilize the price of superphosphate in the face of rising costs and to return to producers a reasonable margin of profit. In September, 1948 a flat rate system was re-introduced, the rates of subsidy being £2 15s. per ton in Western Australia, £2 10s. per ton in Eyre Peninsula and £2 5s. 6d. per ton elsewhere. Subsidy has also been paid on nitrogenous fertilizers from 1943–44. From that year proceeds from sales under the equalization scheme, under which these fertilizers are handled, have been less than expenditure incurred by the equalization pool, and the deficiency in each year has been met by Commonwealth subsidy.

Details of the amounts paid in respect of subsidy on both superphosphate and nitrogenous fertilizers are shown in the table above.

(iv) *Dairying Industry.* The war-time demand for butter, cheese and processed milk products was such as to necessitate production being increased to the limit of existing resources. With this object in view the Commonwealth subsidized production and so encouraged dairy farmers to maintain output at the highest level possible. The amounts paid since the introduction of the subsidy are shown above. These do not include the subsidies paid on the production of whole milk which is consumed directly, and which amounted to £319,000 in 1943–44, £1,786,000 in 1944–45, £2,520,000 in 1945–46, £2,249,000 in 1946–47, £2,157,000 in 1947–48 and £564,000 in 1948–49. This subsidy was discontinued from 30th September, 1948.

(v) *Farmers' Debt Adjustment.* In addition to the assistance outlined above, the Loan (Farmers' Debt Adjustment) Act 1935 made provision for grants, totalling £12 million, to be made available to the States for the adjustment of farmers' debts. Of this amount, £10 million was allocated as follows :—New South Wales, £3,450,000; Victoria, £2,500,000; Queensland, £1,150,000; South Australia, £1,300,000; Western Australia, £1,300,000; and Tasmania, £300,000. The remaining £2 million was allocated in the same proportion, and was subject to review at a later date.

§ 21. Fertilizers.

1. **General.**—In the early days of settlement in Australia scientific cultivation was little understood. It was common, as in other new countries, for the land to be cropped continuously to a degree of exhaustion. This practice is very much less in evidence now than in the early days of Australian agricultural development. Under the guidance of the State Departments of Agriculture, scientific farming is now much more widely practised. The importance of fallowing, crop rotation, and the application of suitable fertilizers in adequate quantities is now appreciated by farmers. The introduction of the modern seed-drill, acting also as a fertilizer-distributor, has greatly facilitated the use of artificial manures and much land formerly regarded as useless for cultivation has now been made productive.

2. **Fertilizers Acts.**—In order to protect the users of artificial fertilizers, legislation has been passed in each of the States regulating the sale and prohibiting the adulteration of fertilizers. A list of these Acts and their main features is given in Official Year Book No. 12, p. 378.

3. **Imports.**—The Australian output of prepared fertilizers is derived chiefly from imported rock phosphates and is sufficient for local requirements.

The chief sources of Australia's pre-war supplies of rock phosphate were Nauru and the Gilbert Islands Group. The war in the Pacific interrupted supplies from these sources and the bulk of the imports until 1946–47 came from Algeria, Egypt, Morocco and the Makatea Islands. Since 1948–49, however, supplies have been obtained mainly from Nauru, Gilbert Islands Group and Christmas Island. Sodium nitrate is obtained chiefly from Chile.

The imports of manures during the five years ended 1949–50, compared with average imports for the period 1934–35 to 1938–39, are shown in the following table :—

FERTILIZERS : IMPORTS INTO AUSTRALIA.

Fertilizer.		Average, 1934–35 to 1938–39.	1945–46.	1946–47.	1947–48.	1948–49.	1949–50.
Ammonium sulphate	cwt.	521,804	647,110	551,730	376,689	204,005	545,182
	£	214,509	458,823	458,858	337,470	228,346	662,121
Potash salts	cwt.	212,813	145,049	126,941	216,977	184,400	258,480
	£	82,220	155,940	147,022	206,231	139,299	265,454
Rock phosphate	cwt.	12,701,938	13,285,672	14,520,198	14,032,030	18,195,277	23,708,035
	£	775,840	1,898,373	2,089,026	1,862,846	2,022,983	2,559,282
Sodium nitrate	cwt.	143,985	..	92,159	129,175	143,460	268,322
	£	63,464	..	60,049	68,085	106,711	273,099
Other ..	cwt.	68,603	106,938	6,074	54,854	10,672	13,467
	£	7,657	18,997	11,307	38,259	35,233	24,966
Total	cwt.	13,649,143	14,184,769	15,297,102	14,809,725	18,737,814	24,793,486
	£	1,143,690	2,532,133	2,766,262	2,512,891	2,532,572	3,784,922

4. **Exports.**—The following table shows the exports of fertilizers (practically all of which are manufactured locally) during the same periods :—

FERTILIZERS : EXPORTS FROM AUSTRALIA.

Fertilizer.		Average, 1934–35 to 1938–39.	1945–46.	1946–47.	1947–48.	1948–49.	1949–50.
Ammonium sulphate	cwt.	3,267	3,484	2,471	2,640	1,743	1,686
	£	1,130	6,125	1,996	1,961	1,465	1,722
Bone-dust ..	cwt.	2,789	9	..	..	..	1,000
	£	1,550	7	..	..	..	422
Sodium nitrate	cwt.	18	11,243	104	80	..	1,151
	£	24	12,927	374	137	..	3,326
Superphosphate	cwt.	35,962	951	4,946	10,359	17,260	24,743
	£	6,209	570	2,061	5,012	10,146	12,459
Other ..	cwt.	54,489	3,198	10,674	1,286	2,532	2,187
	£	25,498	6,389	7,076	1,269	1,294	12,539
Total	cwt.	96,525	18,885	18,195	14,365	21,535	30,767
	£	34,411	26,018	11,507	8,379	12,905	30,468

5. **Quantities Locally Used.**—Information regarding the area fertilized with artificial fertilizers and the quantity of artificial fertilizers (superphosphate, bonedust, nitrates, etc.) used in each State during the year 1949–50 is given in the following table. Details of the area manured with natural manure (stableyard, etc.) are no longer collected.

AREA FERTILIZED AND QUANTITY OF FERTILIZERS USED, 1949–50.

State or Territory.	Area Fertilized (Acres).			Fertilizers Used (Cwt.).		
	Crops.	Pasture Lands.	Total.	Crops.	Pasture Lands.	Total.
New South Wales	3,209,312	1,288,832	4,498,144	2,269,897	1,213,532	3,483,429
Victoria	3,839,014	6,726,723	10,565,746	3,511,176	7,489,225	11,000,401
Queensland..	315,606	1,730	317,336	1,443,152	2,805	1,445,957
South Australia	3,121,981	1,792,334	4,914,315	2,962,993	1,912,357	4,875,350
Western Australia	4,251,299	2,736,146	6,987,445	4,316,282	2,836,361	7,152,643
Tasmania	196,933	461,635	658,568	506,442	571,047	1,077,489
Australian Capital Territory ..	8,711	11,623	20,334	11,093	10,860	21,953
Total	14,942,856	13,019,023	27,961,888	15,021,035	14,036,187	29,057,222

Particulars of the quantity of artificial fertilizers used in each State and Territory during each of the years 1945–46 to 1949–50, compared with the average for the five years ended 1938–39, are shown in the next table. These details include the quantity used in the top-dressing of pasture lands.

The serious diminution in the output of superphosphate during the war caused by the interruption of imports of rock phosphate necessitated the introduction of a system of rationing of supplies which adversely affected the yields from those crops which are mainly dependent upon the use of superphosphate.

QUANTITY OF ARTIFICIAL FERTILIZERS USED.

(Tons.)

Year.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	A.C.T.	Total.
Average, 1934–35 to 1938–39 ..	148,277	305,969	50,651	200,566	230,713	30,272	276	966,724
1945–46 ..	106,008	248,025	46,833	147,147	190,639	34,220	318	773,190
1946–47 ..	141,388	321,092	54,274	194,216	252,532	37,062	517	1,001,081
1947–48 ..	171,707	402,643	54,433	224,253	292,723	41,945	870	1,188,574
1948–49 ..	171,738	467,690	62,084	250,107	333,622	39,109	860	1,325,210
1949–50 ..	174,171	550,020	72,298	243,768	357,632	53,874	1,098	1,452,861

As mentioned in § 20 the Commonwealth Government has encouraged the use of artificial fertilizers by providing subsidies to primary producers.

6. **Local Production.**—Complete information regarding local production of fertilizers is not available. The number of firms engaged in the manufacture of chemical fertilizers in Australia for the year 1949–50 was 51, made up as follows :—New South Wales 14 ; Victoria, 9 ; Queensland, 7 ; South Australia, 7 ; Western Australia, 6 ; and Tasmania, 8. The production of superphosphate in Australia during 1949–50 amounted to 1,483,458 tons, the largest producing States being Victoria, Western Australia and South Australia.

§ 22. Ensilage.

1. **Government Assistance in Production.**—The several State Governments devote a considerable amount of attention to the education of the farming community in regard to the value of ensilage. Monetary aid is afforded in the erection of silos, and expert advice is supplied in connexion with the design of the silos and the cutting and packing of the ensilage.

2. **Quantity Made.**—Information regarding the quantity of ensilage made during each of the seasons 1946–47 to 1949–50, together with respective averages for the five years ended 1938–39, is given in the following table :—

ENSILAGE MADE.
(Tons.)

State.	Average, 1934–35 to 1938–39.	1946–47.	1947–48.	1948–49.	1949–50.
New South Wales ..	109,278	51,783	119,453	91,519	73,047
Victoria	30,594	24,644	21,873	20,945	25,687
Queensland	10,291	13,146	15,635	11,123	10,622
South Australia	8,493	4,739	6,531	5,793	5,545
Western Australia ..	15,779	8,809	13,267	9,077	11,091
Tasmania	1,114	2,890	3,514	3,902	8,271
Australian Capital Territory	..	5	349	110	64
Australia.. ..	175,549	106,016	180,622	142,469	134,327

The drought of 1902–3 drew increased attention to the value of stocks of ensilage, and during the four seasons ended 1909–10 there was an increase both in the number of holdings on which ensilage was made and in the quantity produced. The accumulated stocks proved of great value during the 1914 drought, though far less than would have been the case if more attention had been paid to production during the previous years when there was a surplus of green fodder. The quantities made since that date have fluctuated considerably, but the output increased up to 1939–40 in which year the production of 303,495 tons was the highest yet recorded. During subsequent seasons output declined noticeably and reached the extremely low level of 94,744 tons during the drought year 1944–45, but rose to 180,622 tons in 1947–48, and fell again to 134,327 tons in 1949–50.

3. **Stocks Held on Farms.**—Details of farm stocks of ensilage, which were collected for the first time as at 31st March, 1943, are shown in the following table as at 31st March, 1946 to 1950 :—

ENSILAGE : FARM STOCKS.
(Tons.)

31st March—	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	A.C.T.	Total.
1946 ..	73,371	27,675	16,926	3,186	3,832	3,925	1,740	130,655
1947 ..	60,348	30,662	11,298	2,658	2,916	3,930	100	111,912
1948 ..	109,681	29,649	18,116	5,265	3,987	4,379	491	171,568
1949 ..	100,799	26,995	15,330	4,544	2,565	3,828	266	154,327
1950 ..	108,156	(a)	15,096	2,940	4,628	6,814	194	(a)

(a) Not available.

§ 23. Agricultural Colleges and Experimental Farms.

Agricultural colleges, administered by State Departments of Agriculture, have been established in all States except Tasmania. The primary function of these colleges is the training of students in the various phases of agricultural work and live stock husbandry. Students are required to undertake a considerable amount of practical work in addition to lectures and theory. A secondary function of the colleges is agricultural research and experimentation. To a lesser degree they carry out extension work in the form of public field days. Upon graduation, students receive diplomas in agriculture, dairying or animal husbandry, according to the course undertaken.

Experimental farms have been set up by State Departments of Agriculture in all States. They are primarily concerned with agricultural research and experimentation, each farm concentrating on problems specific to the district in which it is located. The results of the work undertaken are passed on to farmers at field days, which are held at regular intervals, through publication in various agricultural or scientific journals and through the agricultural extension officers of the State Departments of Agriculture.

The Commonwealth Scientific and Industrial Research Organization has field stations scattered throughout Australia, and sometimes undertakes joint research with the appropriate State authorities. In general, however, the Commonwealth Scientific and Industrial Research Organization concentrates on fundamental research, except when otherwise specifically invited, while the State Departments of Agriculture study problems of particular significance within their own boundaries. The universities also carry out valuable research work on their own experimental farms.

§ 24. Tractors on Rural Holdings.

The growth of mechanization in agriculture is indicated by the increase in the number of tractors on rural holdings from 41,943 in 1939 to 103,795 in 1950, or by 147 per cent. Since 1943, the first year in which the collection was made by types, wheeled type tractors have increased by 106 per cent., and crawler types by 43 per cent.

The table below sets out the total numbers of tractors on rural holdings in 1939, and the number of wheeled type and crawler tractors for the five years ended 1950.

TRACTORS ON RURAL HOLDINGS.

March—	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	A.C.T.	Aust.(*a*)
WHEELED TYPE TRACTORS.(*b*)								
1946 ..	16,112	13,599	14,127	6,448	5,774	1,539	48	57,647
1947 ..	17,793	14,321	15,326	7,117	6,803	1,697	51	63,108
1948 ..	18,659	15,611	16,312	7,429	7,482	1,876	62	67,431
1949 ..	21,283	18,480	17,980	8,891	8,527	2,069	71	77,301
1950 ..	25,533	23,235	20,616	11,184	10,323	2,464	84	93,439
CRAWLER OR TRACK TYPE TRACTORS.(*b*)								
1946 ..	1,418	584	2,228	2,763	1,412	129	2	8,536
1947 ..	1,456	614	2,466	2,339	1,326	219	2	8,422
1948 ..	1,599	684	2,637	2,235	1,569	178	3	8,905
1949 ..	1,649	770	2,781	2,380	1,693	173	2	9,448
1950 ..	1,831	884	3,111	2,525	1,796	201	8	10,356
TOTAL TRACTORS.								
1939(*c*) ..	12,926	8,802	8,541	5,969	5,680	(*d*)	25	(*e*) 41,943
1946 ..	17,530	14,183	16,355	9,211	7,186	1,668	50	66,183
1947 ..	19,249	14,935	17,792	9,456	8,129	1,916	53	71,530
1948 ..	20,258	16,295	18,949	9,664	9,051	2,054	65	76,336
1949 ..	22,932	19,250	20,761	11,271	10,220	2,242	73	86,749
1950 ..	27,364	24,119	23,727	13,709	12,119	2,665	92	103,795

(*a*) Excludes Northern Territory. (*b*) Details not collected separately prior to 1943. (*c*) At commencement of year. (*d*) Not available. (*e*) Excludes Tasmania.

§ 25. Number and Area of Rural Holdings and Permanent Employment Thereon.

1. **General.**—The statistical data included in the chapters relating to agricultural, pastoral and dairying activities are obtained at an annual census taken in each State under the direction of the State Statisticians. This census is taken as early as practicable after the conclusion of the main harvest and covers every holding within the boundaries of each State.

A holding in Australia has been defined by the States on a more or less uniform basis and discrepancies which exist are not of sufficient importance to vitiate any comparisons. For the purpose of these statistics, a holding may be defined as land of one acre or more in extent, used in the production of agricultural produce, the raising of live stock or the products of live stock.

With the exception of Queensland, particulars of the number of holdings included in these censuses are available for all States over a series of years. It was not until 1938–39, however, that a complete tabulation became available for Queensland.

2. **Number and Area.**—The following table shows the number and area of the holdings in each State for the years 1938–39 and 1945–46 to 1949–50.

RURAL HOLDINGS : NUMBER AND AREA.

Year.	New South Wales.	Victoria.	Queensland.	South Australia.	Western Australia.	Tasmania.	Australian Capital Territory.	Total.
				NUMBER OF RURAL HOLDINGS.				
1938–39 ..	75,365	72,452	41,503	31,280	21,052	11,680	204	253,536
1945–46 ..	74,173	70,652	42,511	27,635	18,400	11,991	221	245,583
1946–47 ..	74,671	70,750	42,173	28,040	19,064	11,980	217	246,895
1947–48 ..	74,669	70,910	42,070	27,901	19,141	11,852	215	246,758
1948–49 ..	74,303	71,049	41,986	28,110	19,754	11,739	214	247,155
1949–50 ..	73,987	70,486	41,560	27,900	19,565	11,548	221	245,267
				TOTAL AREA OF RURAL HOLDINGS. ('000 ACRES.)				
1938–39 ..	174,660	40,791	317,782	144,682	211,720	6,778	371	896,784
1945–46 ..	169,380	40,523	354,944	142,505	206,001	6,479	376	920,208
1946–47 ..	169,498	40,056	357,551	146,173	211,589	6,401	374	931,642
1947–48 ..	169,198	39,345	358,621	142,393	208,693	6,183	368	924,801
1948–49 ..	167,637	38,867	356,422	146,723	210,658	6,123	376	926,806
1949–50 ..	170,027	38,342	355,803	146,563	211,057	6,411	403	928,606

3. **Analysis of Holdings.**—(i) *General.* It is not possible to classify these holdings according to the purpose for which they are used. This arises from a number of factors, the chief of which is mixed farming. The general trend in Australia is for farmers to diversify their activities and consequently it is very difficult to determine whether the purpose of many holdings is mainly agricultural, pastoral or dairying, or any of these in combination.

(ii) *New South Wales.* Such an analysis has been made in New South Wales but, as pointed out by the Statistician, it should be regarded as an approximation. It was compiled from the description of purpose given by the occupier of the holding at the time of the annual census. This tabulation reveals that there were 71,165 holdings so classified in New South Wales during 1945–46. Of this number 10,447 described their main purposes as agricultural only, 21,590 as pastoral only, 12,157 dairying only, 3,973 as poultry, pig or bee farming, while the main purpose of the remaining 22,098 holdings was stated to be a combination of two or more of these activities. Holdings used mainly for residential or other purposes but which were used partly for the production of rural products were omitted. These numbered 3,008 during 1945–46.

4. **Special Tabulation Relating to Rural Holdings, 1949–50.**—With the co-operation of State Statisticians, the second series of special tabulations relating to rural holdings was undertaken for all States for the year 1949–50. These tabulations have been published in detail in *Primary Industries Bulletin* No. 44, 1949–50. The following table shows particulars of the number and area of rural holdings classified according to the size of holdings.

RURAL HOLDINGS : NUMBER AND AREA CLASSIFIED IN AREA SERIES, 1949–50.

Area Series (Acres).	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	A.C.T.	Aust. (a)
				NUMBER OF HOLDINGS.				
Under 3 ..	941	408	214	317	463	157	..	2,500
3– 4..	1,391	967	239	432	469	178	1	3,677
5– 9..	3,160	2,445	634	927	1,036	437	14	8,653
10– 24..	4,563	6,916	1,596	2,690	1,569	977	9	18,320
25– 49..	4,080	5,520	1,852	2,192	761	1,168	15	15,588
50– 99..	5,209	7,676	4,060	2,182	663	2,048	9	21,847
100– 149..	4,627	6,816	3,733	1,187	745	1,662	4	18,774
150– 249..	6,656	8,742	6,720	1,732	1,279	1,708	6	26,843
250– 499..	9,034	11,118	7,386	2,969	1,699	1,472	16	33,694
500– 749..	6,478	7,047	3,380	2,650	898	510	18	20,981
750– 999..	4,657	3,794	1,527	1,897	887	226	16	13,004
1,000– 1,499..	6,695	4,128	1,957	2,631	1,905	288	34	17,638
1,500– 2,499..	5,925	2,881	1,549	2,584	3,083	256	46	16,324
2,500– 4,999..	5,559	1,401	1,523	1,991	2,718	229	21	13,442
5,000– 9,999..	2,517	424	1,185	806	746	134	7	5,819
10,000–19,999..	1,107	123	1,200	311	143	59	2	2,945
20,000–49,999..	832	61	1,640	173	52	32	3	2,793
50,000–99,999..	369	11	608	78	37	7	..	1,110
100,000 and over	187	8	557	151	412	..	..	1,315
Total ..	73,987	70,486	41,560	27,900	19,565	11,548	221	245,267
				AREA OF HOLDINGS. ('000 ACRES.)				
Under 3 ..	2	1	..	9	1	..	..	4
3– 4..	5	3	1	1	2	1	..	13
5– 9..	20	16	4	6	7	3	..	56
10– 24..	71	113	25	45	24	16	..	294
25– 49..	148	197	68	77	26	43	..	559
50– 99..	375	555	301	157	47	148	..	1,583
100– 149..	561	824	457	144	90	197	..	2,273
150– 249..	1,292	1,680	1,264	339	246	324	1	5,146
250– 499..	3,249	3,931	2,633	1,112	595	502	6	12,028
500– 749..	3,976	4,345	2,060	1,630	549	308	11	12,879
750– 999..	4,050	3,288	1,315	1,647	796	194	14	11,304
1,000– 1,499..	8,173	5,021	2,362	3,205	2,302	345	41	21,449
1,500– 2,499..	11,374	5,410	3,009	4,876	6,048	496	93	31,306
2,500– 4,999..	19,090	4,677	5,301	6,793	9,275	811	69	46,016
5,000– 9,999..	16,932	2,809	8,349	5,470	4,810	904	56	39,330
10,000–19,999..	14,918	1,672	17,274	4,344	1,869	763	25	40,865
20,000–49,999..	26,454	1,756	51,240	5,406	1,879	899	87	87,721
50,000–99,999..	25,780	685	42,108	5,502	2,711	457	..	77,243
100,000 and over	33,557	1,359	218,032	105,809	179,780	..	..	538,537
Total ..	170,027	38,342	355,803	146,563	211,057	6,411	403	928,606

(a) Excludes Northern Territory.

5. **Permanent Employment on Rural Holdings.**—The following table shows for each State of Australia the recorded number of persons permanently engaged full-time on rural holdings as at 31st March, 1950. Additional particulars relating to the number of males employed in agriculture are available up to 1941–42 in Official Year Book No. 36, page 852, and previous issues. Similar details for later years are not available.

RURAL HOLDINGS: PERMANENT FULL-TIME EMPLOYMENT AS AT 31st MARCH, 1950.

Particulars.	N.S.W.	Vic.	Q'land.	S. Aust	W. Aust.	Tas.	A.C.T.	Total.
MALES.								
Owners, Lessees or Sharefarmers	71,277	64,627	43,160	28,122	18,900	9,061	155	235,302
Relatives of Owner, Lessee or Sharefarmer over 14 years of age, not receiving wages or salary ..	7,866	7,142	5,147	2,079	2,340	1,294	21	25,889
Employees, including Managers and Relatives working for wages or salary	33,923	15,174	20,171	8,360	8,782	4,378	136	90,924
Total	113,066	86,943	68,478	38,561	30,022	14,733	312	352,115
FEMALES.								
Owners, Lessees or Sharefarmers	1,649	4,449	10,851	4,766	1,265	567	7	23.554
Relatives of Owner, Lessee or Sharefarmer over 14 years of age, not receiving wages or salary ..	7,835	1,971	5,096	1,273	4,269	373	15	20.832
Employees, including Managers and Relatives working for wages or salary	1,996	1,256	3,467	951	904	369	19	8,962
Total	11,480	7,676	19,414	6,990	6,438	1,309	41	53,348
TOTAL PERSONS ENGAGED.								
Owners, Lessees or Sharefarmers	72,926	69,076	54,011	32,888	20,165	9,628	162	258,856
Relatives of Owner, Lessee or Sharefarmer over 14 years of age, not receiving wages or salary ..	15,701	9,113	10,243	3,352	6,609	1,667	36	46,721
Employees, including Managers and Relatives working for wages or salary	35,919	16,430	23,638	9,311	9,686	4,747	155	99,886
Total	124,546	94,619	87,892	45,551	36,460	16,042	353	405,463

The next table shows for Australia as a whole the number of persons permanently engaged full-time on rural holdings as at 31st March of the six years 1945 to 1950.

RURAL HOLDINGS: PERMANENT FULL-TIME EMPLOYMENT, AUSTRALIA.

Particulars.	As at 31st March—					
	1945.	1946.	1947.	1948.	1949.	1950.
Males—						
Owners, Lessees or Sharefarmers	227,796	233,593	240,753	240,992	236,467	235,302
Relatives of Owner, Lessee or Sharefarmer over 14 years of age, not receiving wages or salary ..	37,760	34,241	32,233	28,171	25,195	25,889
Employees, including managers and relatives working for wages or salary	73,816	82,582	84,300	90,502	91,177	90,924
Total, Males ..	339,372	350,416	357,286	359,665	352,839	352,115
" Females (*a*) ..	58,979	54,513	48,844	47,509	47,933	53,348
Total Persons engaged	398,351	404,929	406,130	407,174	400,772	405,463

(*a*) Total permanently engaged full-time.

CHAPTER XXI.

FARMYARD, DAIRY AND BEE PRODUCTS.

NOTE.—Values of Australian oversea trade shown throughout this chapter are expressed as f.o.b. Australian currency, except where otherwise indicated.

§ 1. Introductory.

1. **General.**—The introduction of cattle into Australia and the early history of the dairying industry are referred to in some detail in earlier issues of this publication. It may here be noted that the original stock has been crossed with specially imported stud cattle, while further judicious crossings of strains have resulted in an increased and improved milk supply. In Australia dairy cattle thrive in the open throughout the year, local climatic conditions demanding no protection other than tree plantations for shelter, and in certain districts rugging in the coldest weather. Indigenous and imported grasses furnish food during the greater part of the year, and winter fodder, when necessary, is given to the cattle in the fields. With the wider application of scientific methods in the treatment of animals and pasturages and in the processes of manufacture, coupled with herd testing and effective State supervision, the dairying industry has shown rapid expansion. It has been demonstrated that Australian production and marketing methods do not adversely affect the vitamin content of the butter and that the loss during ~~cold storage even for as long as two~~ years is insignificant.

Milk production in Australia has fallen to some extent from the peak of 1,254 million gallons recorded in 1939–40, owing to the effects of drought and labour shortages during the 1939–45 War, and, more recently, as a result of a diversion of resources to the wool industry caused by the spectacularly high wool prices in 1950–51.

2. **Mixed Farming.**—Dairying is not, as formerly, wholly confined to agriculturists, since many graziers in a large way of business also give it their attention. In non-coastal regions it is generally carried on in conjunction with agriculture and sheep-raising, sufficient fodder being grown to carry the cattle through the winter months. Local wants are thus met, and in many places remote from the metropolis well-equipped factories have been established. The extent to which dairy cattle were run in conjunction with pig raising and wheat growing in 1949–50 is shown in the relevant tables published in the section "Special Tabulations Relating to Rural Holdings: 1949–50" of *Primary Industries Bulletin* No. 44, 1949–50.

3. **Employment.**—The numbers of persons employed in primary industry are ascertained at the annual census of rural production. The particulars collected are in respect of those persons who were permanently engaged in the actual work of the farm and include owners, lessees, tenants or sharefarmers, relatives over 14 years of age not receiving wages, and other permanent employees, including managers and relatives, working for wages or salary. Details of the numbers so engaged are given in Chapter XX.—Agricultural Production, § 25.

For the years up to 1939–40, information was also collected which enabled the classification of each holding according to the chief purpose for which it was used, thus obtaining a distribution of employment in the three main classes, viz., Agriculture, Pastoral and Dairying. However, because of difficulties in determining with precision the chief purpose for which holdings are used, this information has since been omitted from the schedules. Consequently it has not been possible to continue to compile details of employment in the dairying industry from data obtained from this source.

Details of the number of persons who described themselves at the population census of 30th June, 1947 as being engaged in dairy farming were shown for each State in Official Year Book No. 38, page 1025. They comprised 96,508 males and 10,018 females, a total of 106,526 persons.

4. **Growth of the Dairying Industry.**—The following table gives some indication of the growth of the dairying industry since 1918–19 :—

DAIRYING INDUSTRY : AUSTRALIA.

Year.	Number of Dairy Cows.		Total Milk Produced for all Purposes.	Production of Butter.	Production of Cheese.	Milking Machines (No. of Stands).(a)
	In Milk.	Dry.				
			Mill. gals.	Tons.	Tons.	
1918–19 ..	1,319,588	582,448	529.6	81,162	10,621	(b)
1928–29 ..	1,744,728	600,342	815.4	129,817	13,490	(b)
1938–39 ..	2,600,707	608,812	1,189.2	203,500	29,304	(b)
1946–47 ..	2,227,022	786,119	1,079.6	143,308	42,350	125,720
1947–48 ..	2,267,221	818,044	1,173.1	162,055	41,478	134,774
1948–49 ..	2,339,885	818,725	1,212.6	165,830	43,202	144,916
1949–50 ..	2,354,217	837,218	1,241.8	173,599	44,796	155,218
1950–51 ..	2,252,741	895,930	(c) 1,199.7	(c) 164,971	(c) 44,578	165,788

(a) "Number of Stands" indicates the number of cows that can be milked simultaneously—i.e., the cow capacity of installed milking machines. (b) Not available. (c) Subject to revision.

5. **Official Supervision of Dairying Industry.**—Dairy experts of the various State Agricultural Departments give instruction in approved methods of production, and inspect animals, buildings and marketable produce. A high standard of cleanliness, both of *personnel* and *materiel*, prevails.

The export trade is regulated by the terms of the Commonwealth Commerce (Trade Descriptions) Act 1905–1933, and regulations thereunder. It will be sufficient to state here that the true trade description, etc., must be marked on all produce intended for export, while official inspection ensures the maintenance of purity and quality. Upon request of the exporter the goods are given a certificate by the inspector.

§ 2. Dairy Cattle and Dairy Products.

1. **Dairy Herds.**—Due to the lack of uniformity in the schedules used by the several States in the collection of live-stock statistics, it is not possible to measure with precision the growth of the dairy herds of Australia prior to 1943. However, statistics of dairy cows, which provide a reliable measurement of this development, show that in 1918–19 there were 1,902,036 dairy cows (in milk and dry), compared with 2,345,070 in 1928–29 and 3,209,519 in 1938–39. The numbers remained at this level until March, 1944, but have since declined, the number recorded at 31st March, 1951, being 3,148,671. In New South Wales, Victoria, South Australia and Tasmania the proportion of dairy cattle to all cattle is high. In Queensland, the Northern Territory and Western Australia there is a great preponderance of other cattle, the main object in these areas being the production of beef. Dairying, however, has developed greatly in southern Queensland since 1914–15, and the largest contribution to the Australian increase in dairy production has been made by this State. Since 1939 the number of dairy cows has declined in both Queensland and New South Wales while significant increases have occurred in Victoria and South Australia. The numbers of dairy cows for 1947 to 1951 shown in the following table refer to those recorded by farmers as being in milk and dry as at 31st March. The figures shown for the years 1935 to 1939 cover the same categories, but the period differs in some States (*see* footnote (*a*)). To this extent the figures lack comparability.

NUMBER OF CATTLE AND DAIRY COWS (IN MILK AND DRY).

State.		Average, 1935–39. (a)	31st March— 1947.	1948.	1949.	1950.	1951.
N.S.W.(b) ..	All Cattle ..	3,054,164	2,983,093	3,129,740	3,252,752	3,440,461	3,702,848
	Dairy Cows..	1,024,761	849,707	862,041	872,431	875,988	855,882
Victoria ..	All Cattle ..	1,892,465	2,060,061	2,174,203	2,224,543	2,230,948	2,216,253
	Dairy Cows..	912,621	877,205	896,886	930,252	956,558	943,039
Queensland ..	All Cattle ..	6,047,726	5,945,285	5,975,460	5,991,797	6,304,778	6,733,548
	Dairy Cows..	924,875	913,656	946,174	963,473	962,752	967,959
South Australia	All Cattle ..	331,488	423,980	445,287	461,086	464,141	432,566
	Dairy Cows..	154,870	163,992	166,954	172,865	174,835	160,204
W. Australia ..	All Cattle ..	796,473	811,949	815,610	864,131	864,936	841,204
	Dairy Cows..	121,127	131,711	132,305	133,219	129,365	127,544
Tasmania ..	All Cattle ..	260,267	220,119	244,107	266,419	274,740	271,784
	Dairy Cows..	93,708	75,118	79,135	84,433	89,546	91,859
Nor. Territory	All Cattle ..	893,925	972,990	991,429	1,052,811	1,048,875	1,019,149
	Dairy Cows..	(c)	(c)	(c)	(c)	(c)	(c)
Aust. Cap. Ter.	All Cattle ..	8,261	9,169	8,748	10,071	11,161	11,477
	Dairy Cows..	1,019	1,752	1,770	1,937	2,391	2,184
Australia ..	All Cattle ..	13,284,769	13,426,646	13,784,584	14,123,610	14,640,040	15,228,829
	Dairy Cows..	3,232,981	3,013,141	3,085,265	3,158,610	3,191,435	3,148,671

(a) As at 31st March for New South Wales and Australian Capital Territory; 1st March for Victoria; 1st January for Queensland, South Australia, Western Australia and Tasmania. (b) Includes other milking cows not in registered dairies. (c) Not available.

In the next table the dairy cattle in each State are shown in various categories as at 31st March, 1949, 1950 and 1951. Information in this detail was not collected uniformly in all States prior to 1943.

NUMBER OF DAIRY CATTLE.

State.	31st March.	Dairy Cows. In Milk.	Dairy Cows. Dry.	Dairy Heifers 1 year and over.	Dairy Calves under 1 year.	Dairy Bulls.	Total Dairy Cattle.
New South Wales ..	1949	(a)696,590	175,841	199,884	163,018	24,024	1,259,357
	1950	(a)693,203	182,785	210,851	162,067	24,097	1,273,003
	1951	672,871	183,011	204,056	161,991	23,827	1,245,756
Victoria	1949	688,514	241,738	304,795	239,457	38,788	1,513,292
	1950	715,327	241,231	298,563	231,104	38,958	1,525,183
	1951	674,011	269,028	281,795	227,203	37,356	1,489,393
Queensland	1949	700,908	262,565	225,756	205,333	28,269	1,422,831
	1950	693,413	269,339	234,317	207,726	27,965	1,432,760
	1951	666,398	301,561	229,800	215,070	27,369	1,440,198
South Australia ..	1949	118,823	54,042	54,521	42,925	8,710	279,021
	1950	118,263	56,572	50,827	37,358	8,328	271,348
	1951	105,765	54,439	42,341	33,483	7,597	243,625
Western Australia ..	1949	65,631	67,588	40,859	50,033	5,882	229,993
	1950	60,383	68,982	42,263	48,950	5,835	226,413
	1951	60,873	66,671	41,365	48,097	5,869	222,875
Tasmania	1949	67,849	16,584	27,329	39,117	4,243	155,122
	1950	71,985	17,561	27,965	36,168	4,280	157,959
	1951	71,633	20,226	27,148	33,926	4,091	157,024
Australian Capital Territory	1949	1,570	367	570	485	30	3,022
	1950	1,643	748	342	369	36	3,138
	1951	1,190	994	678	655	56	3,573
Australia(b) ..	1949	2,339,885	818,725	853,714	740,368	109,946	4,862,638
	1950	2,354,217	837,218	865,128	723,742	109,499	4,889,804
	1951	2,252,741	895,930	827,183	720,425	106,165	4,802,444

(a) Includes other milking cows not in registered dairies. (b) Excludes Northern Territory.

A graph showing the distribution of dairy cattle in Australia at 31st March, 1948 appears on page 906 of this issue.

2. **Size of Dairy Herds.**—A series of special tabulations relating to rural holdings, undertaken for all States for the year 1949–50, covered, *inter alia*, a classification of holdings with dairy cattle according to size of herd. Details of these tabulations are published in *Primary Industries Bulletin* No. 44, 1949–50.

3. **Factory System.**—(i) *General.* Cream separation and butter-making are often carried on together under the co-operative system. The creation of large central butter factories has resulted in a considerable reduction in the cost of manufacture, since improved appliances such as refrigerators, etc., may be profitably worked at the larger establishments. The product is also of a more uniform quality, and few farmers prefer to convert the cream rather than send it to the factory. Formerly the average quantity of milk used per pound of hand-made butter was about 3 gallons, but separator butter requires less than 2½ gallons.

(ii) *Number of Factories.* The factories in Australia for the manufacture of butter, cheese and condensed milk numbered 428 in 1949–50. They were distributed among the States as follows :—New South Wales, 99 ; Victoria, 144 ; Queensland, 95 ; South Australia, 45 ; Western Australia, 18 ; and Tasmania, 27. More details regarding numbers of factories, output, etc., are given in Chapter XXIV.—Manufacturing Industry.

4. **Butter and Cheese—Stabilization Schemes.**—(i) *Voluntary Plan.* During the period from January, 1926 to April, 1934, a voluntary scheme known as the " Paterson Plan " was in operation and had the effect of stabilizing the price of butter in Australia. Details of this scheme may be found on page 1028 of Official Year Book No. 38 and in earlier issues.

(ii) *Compulsory Plan.* On 1st May, 1934 the " Paterson Plan " was superseded by a compulsory price equalization plan details of which were shown on page 1029 of Official Year Book No. 38 and earlier issues. This compulsory plan was invalidated by the decision in 1936 of the Privy Council which declared in the James (Dried Fruits) Case that the Commonwealth had no power under the Constitution to regulate trade between the States.

(iii) *Equalization Scheme.* Since the Privy Council decision, the butter price stabilization scheme has continued to operate by voluntary action based on the agreements between the manufacturers and the Commonwealth Dairy Produce Equalisation Committee Limited. The Committee, which comprises members of the State Dairy Products Boards and other persons representing the industry, enters into agreements with manufacturers to secure to them equal rates from sales of butter and cheese, and for this purpose may fix basic prices at which these products sold in Australia or abroad are to be taken into account. The effect is that local and export trade are distributed in equitable proportions among the manufacturers by means of quotas. The Committee fixes basic prices and equalizes returns to factories through an Equalisation Fund. The States originally participating in the scheme were New South Wales, Victoria, Queensland and Tasmania in respect of both butter and cheese, and South Australia in respect of cheese. South Australia and Western Australia entered the scheme in respect of butter on 1st April, 1946 and Western Australia extended its participation to include cheese in January, 1947.

The home consumption prices of butter and cheese were fixed by the Commonwealth Prices Commissioner up to 19th September, 1948, from which date prices have been controlled by State Governments.

5. **Commonwealth Subsidies.**—(i) *Butter, Cheese and Processed Milk Products.* Under the provisions of the various Dairy Industry Assistance Acts, the first of which was passed in 1942, the Commonwealth Government has provided subsidies on milk supplied for the manufacture of butter, cheese and processed milk products. Subsidies were paid on a seasonal basis prior to 1st April, 1946, but from that date have been on a flat rate basis. Subsidies are distributed by the Commonwealth Dairy Produce Equalisation Committee Limited through factories to milk producers by payments on butter,

cheese and processed milk products manufactured. Subsidy on milk supplied for the manufacture of processed milk products was discontinued from 1st July, 1948, but was resumed from 1st July, 1949.

The following table shows particulars, in respect of butter and cheese, of the rates realized on local, interstate and overseas sales and the average equalization and subsidy rates in operation for the years ended June, 1939 and 1947 to 1951.

BUTTER AND CHEESE: RATES REALIZED ON SALES, AVERAGE EQUALIZATION RATES AND RATES OF COMMONWEALTH SUBSIDY UNDER DAIRY INDUSTRY ASSISTANCE ACTS.

(Source: Commonwealth Dairy Produce Equalisation Committee Limited.)

(Rates s. d. per cwt.)

Year ended 30th June.	Rates Realized on Sales.			Average Equalization Rate.	Rate of Subsidy.	Overall Return to Manufacturers.
	Local.	Interstate.	Overseas.			
			BUTTER.			
1939.. ..	154 5.5	146 5.5	121 7.5	136 3.5	..	136 3.5
1947.. ..	162 1.6	150 4.1	210 3.8	183 3.0	30 8.3	213 11.3
1948.. ..	178 1.9	174 8.8	243 5.6	210 1.9	35 4.1	245 6.0
1949.. ..	209 9.0	197 3.5	267 0.6	237 6.7	28 11.3	266 6.0
1950.. ..	209 9.6	196 2.0	293 2.4	248 11.2	43 11.2	292 10.4
1951(*a*)—						
July–Nov. ..	(*b*)	(*b*)	(*b*)	252 0.0	60 2.4	312 2.0
Dec.–June ..	(*b*)	(*b*)	(*b*)	252 0.0	82 7.2	334 7.0
			CHEESE.			
1939.. ..	(*c*) 94 8.6		59 3.2	71 7.6	..	71 7.6
1947.. ..	(*c*) 103 11.2		116 5.2	109 2.2	13 8.9	122 11.1
1948.. ..	106 8.4		133 1.5	119 9.3	19 7.6	139 4.9
1949.. ..	123 0.7		148 8.0	138 1.0	11 3.9	149 4.9
1950.. ..	122 9.5		162 3.3	141 4.8	23 10.9	165 3.7
1951(*a*)—						
July–Nov. ..	(*b*)		(*b*)	141 6.0	35 3.3	176 9.0
Dec.–June ..	(*b*)		(*b*)	141 6.0	46 10.8	188 4.0

(*a*) Interim rates. (*b*) Not yet available. (*c*) Lower rates were determined for cheese sold in these years for processing for local consumption.

Following representations by industry organizations, the Commonwealth Government established the Joint Dairy Industry Advisory Committee in November, 1946, comprising a chairman nominated by the Government, four representatives of Commonwealth Government Departments and four industry representatives from the several States. The Committee's functions, broadly, are to advise and assist in conducting cost and other surveys of dairy farm production and to act as an advisory body to the Government in these matters. Since 1st April, 1947, the rates of over-all return to milk producers determined by the Commonwealth Government for the purpose of subsidy payments have been based on recommendations made by the Committee following surveys of production costs in the dairy industry.

For the years 1948–49 and 1949–50 and the period July to November, 1950, export prices for butter, including those applicable under the United Kingdom Dairy Products Contract were in excess of the f.o.b. equivalent of the basic return to the factory. Cheese was in the same position in 1948–49. Since July, 1949, in respect of cheese and since December, 1950, in respect of butter, the United Kingdom contract prices have been below the f.o.b. equivalent of the respective basic returns to factories. Amounts realized on exports in excess of the basic return to factories have been credited to the Dairying Industry Stabilization Fund, which was established in July, 1948, for the purpose of stabilizing returns from exports for the period of the United Kingdom Contract. At 30th June, 1951 contributions to the Fund amounted to approximately £4,000,000.

Subsidy payments by the Commonwealth Government since July, 1948 have applied to butter and cheese for local consumption and are paid through factories to dairy farmers to bring total returns for milk used for those purposes to the guaranteed prices.

(ii) *Whole Milk.* In addition to the subsidies referred to above, the Commonwealth Government has also subsidized the production of whole milk consumed directly. The subsidy rates varied according to States, regions within the State and the seasonal period. Commonwealth subsidy on whole milk was paid during the year 1948–49 in respect of milk supplied up to 30th September, 1948, but was discontinued after that date. Details of the amounts distributed during each year will be found in Official Year Book No. 38, page 1031.

6. **Total Dairy Production.**—The dairy production for each State in 1949–50 is shown below:—

DAIRY PRODUCTION, 1949–50.

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	A.C.T.	Total.
				MILK ('000 GAL.).				
Used for—								
Butter ..	(*a*)185,983	(*b*)299,674	(*c*)222,055	39,059	31,937	27,935	39	806,682
Cheese ..	6,335	45,350	19,880	22,716	1,547	929	..	96,757
Condensing and concentrating..	23,924	54,845	(*d*)	(*d*)	(*d*)	(*d*)	..	(*e*) 88,034
Other purposes ..	95,338	69,384	(*f*) 39,190	(*f*) 27,613	(*f*) 15,992	(*f*) 11,379	655	250,286
Total ..	311,580	469,253	281,125	89,388	49,476	40,243	694	1,241,759
				BUTTER (TONS).				
In Factories	(*g*) 36,817	(*h*) 63,358	(*i*) 48,196	8,236	6,769	5,069	..	168,445
On Dairy and other Farms(*j*)	2,025	1,313	589	526	239	456	6	5,154
Total ..	38,842	64,671	48,785	8,762	7,008	5,525	6	173,599
				CHEESE (TONS).				
In Factories	2,827	21,193	(*k*) 9,050	10,587	701	418	..	44,776
On Dairy and other Farms(*j*)	..	9	2	..	6	3	..	20
Total ..	2,827	21,202	9,052	10,587	707	421	..	44,796
				CONDENSED, CONCENTRATED AND POWDERED MILK, ETC. (TONS).				
In Factories	24,702	69,396	(*d*)	(*d*)	(*d*)	(*d*)	..	(*e*)112,240

(*a*) Includes 2,903,000 gallons of milk, the produce of New South Wales, sent as cream to factories in Victoria and Queensland. (*b*) Includes 708,000 gallons of milk, the produce of Victoria, sent as cream to New South Wales. (*c*) Includes 831,000 gallons of milk, the produce of Queensland, sent as cream to New South Wales. (*d*) Not available for publication. (*e*) Includes particulars for States marked (*d*). (*f*) Includes milk used in the production of condensed, concentrated and powdered milk, etc. (*g*) Includes 335 tons of butter made from cream, the produce of Victoria and Queensland. (*h*) Includes 504 tons of butter made from cream, the produce of New South Wales. (*i*) Includes 120 tons of butter made from cream, the produce of New South Wales. (*j*) Estimated. (*k*) Includes 172 tons of cheese made in establishments not classified as factories.

7. **Whole Milk.**—(i) *Production and Utilization.* During the five years ended 1938–39 approximately 80 per cent. of Australia's milk supply was used for butter-making, 4 per cent. for cheese manufacture, 2 per cent. for condensary products and 14 per cent. for fluid consumption and other purposes. There has since been a considerable decline in the proportion of milk used for butter-making with corresponding increases in the quantities used for other purposes. In 1949–50, 65·0 per cent. of the total milk supply was used for butter, 7.8 per cent. for cheese, 7.1 per cent. for condensary products and 20.1 per cent. for other purposes.

Details of the production of whole milk for various purposes are shown in the following table for each year 1945–46 to 1949–50 in comparison with the average for the years 1934–35 to 1938–39 :—

PRODUCTION AND UTILIZATION OF WHOLE MILK : AUSTRALIA.

('000 gallons.)

Year.	Total Production.	Quantity used for—			
		Butter (Factory and Farm).	Cheese (Factory and Farm).	Condensary Products.	Other purposes.
Average, 1934–35 to 1938–39	1,149,559	913,754	48,595	28,116	159,094
1945–46	1,077,469	701,819	89,555	65,313	220,782
1946–47	1,079,640	678,293	91,086	70,450	239,811
1947–48	1,173,105	763,049	90,121	78,113	241,822
1948–49	1,212,644	781,230	93,720	87,653	250,041
1949–50	1,241,759	806,682	96,757	88,034	250,286

In the following table, particulars of production of whole milk in the several States are shown for the years 1945–46 to 1949–50, compared with the average for the five years ended 1938–39. Victoria is the principal milk-producing State and in 1949–50 output from that State, viz., 469.3 million gallons, represented 37.8 per cent. of total production. Output from New South Wales was 311.6 million gallons or 25.1 per cent. of the total and that of Queensland 281.1 million gallons (22.6 per cent.). Production in the remaining States accounted for 14.5 per cent. of the total Australian output.

TOTAL PRODUCTION OF WHOLE MILK.

('000 gallons.)

Year.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	A.C.T.	Total.
Average, 1934–35 to 1938–39 ..	331,963	402,447	278,226	63,538	40,394	32,659	332	1,149,559
1945–46 ..	278,885	375,639	269,390	79,370	43,004	30,714	467	1,077,469
1946–47 ..	254,094	445,536	207,465	93,944	46,038	32,080	483	1,079,640
1947–48 ..	295,370	428,569	272,791	92,498	50,363	32,936	578	1,173,105
1948–49 ..	291,915	462,446	277,152	91,319	50,612	38,541	659	1,212,644
1949–50 ..	311,580	469,253	281,125	89,388	49,476	40,243	694	1,241,759

(ii) *Production per Cow.* The annual quantity of milk produced per dairy cow reaches as high as 1,000 gallons, varying greatly with breed, locality and season. For the whole of Australia for all dairy cows and for all seasons prior to 1916 it averaged considerably under 300 gallons per annum. In recent years not only has there been an improvement in the quality of the cattle, but the application of scientific methods has been continually extended, and the 300-gallon average has been exceeded in each year since 1924, the yield of 392 gallons in 1931 constituting a record. In 1949-50 the yield was 391 gallons. The annual average yields per cow shown in the following table are based on the number of dairy cows which were in milk during any part of the year. The average shown is, therefore, below that for cows which were yielding during the greater part of the year. It should be noted that there are many difficulties attending the collection of particulars of the total quantity of milk obtained during any year. In addition, there is the further difficulty of ascertaining with reasonable accuracy the average number of cows in milk during the same period. The average yield per cow shown hereunder may be accepted as sufficiently reliable to show the general trend :—

MILK PRODUCTION.

Heading.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	A.C.T.	Australia. (b)
Average, 1934–35 to 1938–39—								
Dairy Cows(a) No.	1,030,441	913,635	909,006	154,349	120,767	93,764	958	3,222,920
Production '000 gal.	331,963	402,447	278,226	63,538	40,394	32,659	332	1,149,559
Av. per cow .. gal.	322	440	306	412	334	348	347	357
1945–46—								
Dairy Cows(a) .. No.	884,469	835,300	994,606	156,027	135,475	74,689	1,368	3,081,934
Production '000 gal.	278,885	375,639	269,390	79,370	43,004	30,714	467	1,077,469
Av. per cow .. gal.	315	450	271	509	317	411	341	350
1946–47—								
Dairy Cows(a) .. No.	857,745	844,302	950,745	157,047	132,828	74,530	1,612	3,018,809
Production 000 gal.	254,094	445,536	207,465	93,944	46,038	32,080	483	1,079,640
Av. per Cow .. gal.	296	528	218	598	347	430	300	358
1947–48—								
Dairy Cows(a) .. No.	855,874	887,045	929,915	165,473	132,008	77,127	1,761	3,049,203
Production '000 gal.	295,370	428,569	272,791	92,498	50,363	32,936	578	1,173,105
Av. per cow .. gal.	345	483	293	559	382	427	328	385
1948–49—								
Dairy Cows(a) .. No.	867,236	913,569	954,824	169,909	132,762	81,784	1,854	3,121,938
Production '000 gal.	291,915	462,446	277,152	91,319	50,612	38,541	659	1,212,644
Av. per cow .. gal.	337	506	290	537	381	471	355	388
1949–50—								
Dairy Cows(a) .. No.	874,210	943,405	963,113	173,850	131,292	86,989	2,164	3,175,023
Production '000 gal.	311,580	469,253	281,125	89,388	49,476	40,243	694	1,241,759
Av. per cow .. gal.	356	497	292	514	377	463	321	391

(a) Mean for the year. (b) Excludes Northern Territory.

8. **Butter Production.**—There was a steady increase in the annual output of butter for many years prior to the 1939–45 War. The average annual production rose from 126,000 tons for the five years ended 1928–29 to 195,000 tons for the five years ended 1938–39.

Following the record output of 212,000 tons in 1939–40 the general trend of butter production declined until 1946–47, when 143,300 tons were produced. The factors contributing to this decline include unfavorable seasons, transfer of man-power owing to the war, shortages of fertilizers for pastures and change in some factories from butter production to the manufacture of cheese and preserved whole milk products. Output increased to 162,100 tons in 1947–48, to 165,800 tons in 1948–49 and to 173,600 tons in 1949–50. The foregoing figures include butter produced on farms which has shown a decline from about 8,700 tons in 1938–39 to 5,154 tons in 1949–50.

The following table shows production of butter in factories in each State for the years 1945–46 to 1949–50, compared with the average for the five years ended 1938–39.

BUTTER PRODUCTION IN FACTORIES.
(Tons.)

Year.	New South Wales.	Victoria.	Queensland.	South Australia.	Western Australia.	Tasmania.	Australia.(a)
Average 1934–35 to 1938–39 ..	52,949	62,489	53,255	7,570	5,459	3,811	185,533
1945–46	33,161	50,080	45,198	7,750	5,604	3,778	145,571
1946–47	26,958	59,387	33,078	9,242	6,000	4,191	138,856
1947–48	33,958	56,717	46,454	9,043	7,061	4,441	157,674
1948–49	33,267	60,039	47,197	8,800	6,966	4,821	161,090
1949–50	36,817	63,358	48,196	8,236	6,769	5,069	168,445

(a) Northern Territory and Australian Capital Territory: Nil.

The table below shows the monthly production of factory butter in Australia in each of the years 1938–39 and 1945–46 to 1949–50. The annual output of farm butter is also shown.

PRODUCTION OF BUTTER IN FACTORIES AND ON FARMS : AUSTRALIA.

(Tons.)

Particulars.	1938–39.	1945–46.	1946–47.	1947–48.	1948–49.	1949–50.
Factories—						
July	9,415	6,709	7,084	7,834	7,892	7,393
August	11,645	8,643	8,790	8,906	10,411	10,169
September ..	15,531	10,908	11,105	12,820	13,335	13,003
October	20,485	15,909	14,415	17,292	17,487	19,083
November ..	22,561	16,051	14,904	17,442	18,166	21,524
December ..	20,710	16,503	15,178	20,612	18,481	21,334
January	15,872	14,338	13,303	19,345	17,101	17,389
February ..	15,816	14,175	12,699	13,806	14,246	14,725
March	17,729	14,691	13,384	13,493	15,380	15,126
April	16,583	11,738	10,782	10,104	12,153	11,146
May	15,568	9,248	9,209	8,636	9,139	9,484
June	12,871	6,658	8,003	7,384	7,299	7,169
Factory Total (*a*) ..	194,786	145,571	138,856	157,674	161,090	168,445
Made on Farms (*b*) ..	8,714	4,792	4,497	4,467	4,740	5,154
Grand Total ..	203,500	150,363	143,353	162,141	165,830	173,599

(*a*) Year ended June. (*b*) Year ended March.

9. **Cheese Production.**—Until 1916 the annual production of cheese had not reached 10,000 tons. From 1916 to 1926–27 it ranged between 10,000 and 13,000 tons with two years (1921 and 1924) having more than 14,000 tons. For the next five years between 13,500 and 14,800 tons were produced each year. Then (in 1932–33) production rose to 16,500 tons, and, with some reversals of trend, has continued to rise to reach the record output of 44,800 tons in 1949–50. The States contributing chiefly towards this increase over the years are Victoria, Queensland and South Australia.

The following table shows production of cheese in factories in each State in the years 1945–46 to 1949–50 in comparison with average output during the years 1934–35 to 1938–39 :—

CHEESE PRODUCTION IN FACTORIES.

(Tons.)

Year.	New South Wales.	Victoria.	Queensland.	South Australia.	Western Australia.	Tasmania.	Australia.(*a*)
Average, 1934–35 to 1938–39 ..	3,332	6,177	5,071	5,437	390	1,210	21,617
1945–46	2,169	14,913	12,023	10,035	811	1,013	40,964
1946–47	2,029	17,615	7,720	12,768	1,016	1,070	42,218
1947–48 ..	2,637	16,167	9,641	11,530	1,019	447	41,441
1948–49	2,490	18,352	9,390	11,654	870	404	43,160
1949–50	2,827	21,193	9,050	10,587	701	418	44,776

(*a*) Northern Territory and Australian Capital Territory : Nil.

The monthly production of cheese in factories in Australia, together with the annual output from farms, is shown in the table below for 1938–39 and each of the years 1945–46 to 1949–50.

PRODUCTION OF CHEESE IN FACTORIES AND ON FARMS : AUSTRALIA.

(Tons.)

Month.	1938–39.	1945–46.	1946–47.	1947–48.	1948–49.	1949–50.
Factories—						
July	1,517	1,643	2,177	2,393	2,051	1,995
August	1,950	2,524	3,038	3,047	3,143	3,104
September ..	2,820	3,865	4,173	4,259	4,572	4,625
October	4,028	5,196	5,447	5,703	5,978	6,265
November ..	3,990	5,147	5,604	5,760	5,802	6,525
December ..	3,462	4,832	5,017	5,343	5,317	6,208
January ..	2,212	3,512	3,737	4,463	4,257	4,591
February ..	1,715	3,224	2,781	2,864	2,997	3,175
March	1,826	3,526	2,793	2,428	3,165	2,833
April	1,656	2,894	2,489	1,698	2,446	2,316
May	1,898	2,570	2,608	1,795	1,854	1,790
June	1,900	2,031	2,354	1,688	1,578	1,349
Factory Total (*a*) ..	28,974	40,964	42,218	41,441	43,160	44,776
Made on Farms (*b*) ..	330	274	132	37	42	20
Grand Total ..	29,304	41,238	42,350	41,478	43,202	44,796

(*a*) Year ended June. (*b*) Year ended March.

10. **Condensed, Concentrated and Powdered, etc. Milk Production.**—The manufacture of these products has expanded greatly since 1938–39—to meet the needs of the Services during the 1939–45 War and for export purposes since the war. The output of condensed milk (sweetened and unsweetened) in 1949–50 was 186.9 per cent. higher than in the three years ended 1938–39 while that of powdered milk (full cream and skim) was 236.2 per cent. higher. Over the same period the quantity of whole milk used in the manufacture of the products shown below increased from 28.1 million gallons to 88.0 million gallons or by 213.1 per cent. These products are manufactured mainly in Victoria, which produced 61.8 per cent. of the total in 1949–50. New South Wales accounted for 22.0 per cent. of the total in that year, the remaining States producing 16.2 per cent.

The following table shows details of the output of condensed, concentrated, powdered, etc. milk during the years 1945–46 to 1949–50, compared with the available details for the years 1936–37 to 1938–39.

PRODUCTION OF CONDENSED, CONCENTRATED AND POWDERED, ETC. MILK : AUSTRALIA.

(Tons.)

Year.	Condensed Milk (Sweetened and Unsweetened).	Concentrated Whole Milk. (*a*)	Powdered Milk.		Infants' and Invalids' Foods (including Malted Milk and Milk Sugar).	Total.
			Full Cream and Skim.	Buttermilk and Whey.		
Average, 1936–37 to 1938–39	17,347	(*b*) 1,355	9,464	(*b*) 701	(*b*) 1,131	(*b*)29,998
1945–46	42,997	9,138	16,645	1,636	8,851	79,267
1946–47	41,257	9,466	18,017	2,805	8,452	79,997
1947–48	45,595	13,444	20,394	3,411	9,452	92,296
1948–49	47,773	13,177	25,884	3,019	10,104	99,957
1949–50	49,767	17,270	31,932	2,989	10,282	112,240

(*a*) Mainly for ice-cream manufacture. (*b*) Incomplete.

11. **Local Consumption of Butter and Cheese.**—The production of butter and cheese less net exports and adjusted to account for movements in stocks, represents the quantity available for consumption in Australia.

As previously mentioned, the quantity of butter required by the Armed Services based upon Australia limited supplies during the war years for export overseas and for consumption in Australia. The former had diminished to such an extent that, in order to prevent further decline, it became necessary to introduce a system of butter rationing on 7th June, 1943. The rate was fixed at 8 oz. per head per week, but was reduced to 6 oz. per week as from 7th June, 1944. Butter rationing was discontinued from 16th June, 1950.

As a result of rationing, butter consumption in 1949–50 was 25.3 lb. per head per annum compared with an average of 32.9 lb. during the years 1936–37 to 1938–39. The rationing of butter has been associated with increased cheese consumption which amounted to 6.3 lb. per head in 1949–50 compared with 4.4 lb. pre-war. Preliminary estimates of butter and cheese consumption in 1950–51 are 31.2 lb. and 6.6 lb. respectively.

The following table shows details of the production and disposal of butter and cheese for the periods 1946–47 to 1949–50, compared with the average for the years 1936–37 to 1938–39.

PRODUCTION AND DISPOSAL OF BUTTER AND CHEESE: AUSTRALIA.

('000 tons.)

Year.	Changes in Stock.	Production.	Exports. (a)	Consumption in Australia.	
				Total.	Per Head per annum.
BUTTER.					
					lb.
Average, 1936–37 to 1938–39	(b)	191.0	90.0	101.0	32.9
1946–47	(c) −2.2	143.4	60.7	84.9	25.3
1947–48	(c) −6.4	162.1	83.8	84.7	24.8
1948–49	(c) −2.1	165.8	83.4	84.5	24.3
1949–50	(c) +0.8	173.6	81.9	90.9	25.3
CHEESE.					
					lb.
Average, 1936–37 to 1938–39	(b)	24.9	11.5	13.4	4.4
1946–47	− 2.2	42.4	24.0	20.6	6.1
1947–48	..	41.5	22.9	18.6	5.5
1948–49	− 0.7	43.2	26.2	17.7	5.1
1949–50	− 1.0	44.8	23.1	22.7	6.3

(a) Figures for butter include dry butter fat, ghee and tropical spread expressed as butter as well as butter shipped as ships' stores. Figures for cheese include ships' stores after allowance for a small quantity of cheese imported. (b) Not available. (c) Includes allowance for movements in stocks other than those held in main cold stores.

12. **Marketing of Dairy Products.**—(i) *The Dairy Produce Export Control Act* 1924–47. Introduced at the request of the dairying industry this Act was passed by the Commonwealth Parliament with the object of organizing the oversea marketing of Australian dairy produce. A Dairy Produce Control Board was appointed and was in existence from 1924 to 1935. It dealt with matters relating to the organization and supervision of oversea marketing of dairy produce. In the course of its functions the Board regulated shipments to ensure regularity of supply in the London market, controlled forward selling, obtained reductions in oversea freights and insurance rates and participated in an advertising campaign in the United Kingdom.

Prior to the appointment of the Dairy Produce Control Board a voluntary body—the Australian Dairy Council—was established to advise and make recommendations to the Governments on problems connected with the production, manufacture and quality of dairy produce, pasture improvement and diseases of dairy cattle.

Following a recommendation by the Australian Agricultural Council the functions of these bodies were combined by an amending Act of 1935 under the Australian Dairy Produce Board and provision was made for the allocation of money from the Board's funds for research and investigation into pastures, diseases of dairy cattle and the quality of butter. The functions of the Board were later extended to enable it to advise the Government in connexion with the transport of dairy produce, the securing of new markets, the expansion of existing markets and other matters.

The Australian Dairy Produce Board was re-constituted in 1947 by an amendment to the Dairy Produce Export Control Act, reducing its membership from seventeen to twelve. The functions of the Board were extended to enable it to purchase and sell, on behalf of the Commonwealth, dairy produce intended for export, and to control all matters concerning the handling, storage, protection, treatment, transfer and shipment of the produce so purchased or sold.

(ii) *The Dairy Produce Export Charges Act* 1924–1937. This Act provides for the imposition of a levy on all butter and cheese exported from Australia to cover the administrative expenses of the Board and for advertising and other purposes. The rate of the levy is fixed by regulation.

(iii) *War-time Marketing.* Reference to the marketing arrangements which operated during the 1939–45 War was made in Chapter XXVIII.—Miscellaneous, pp. 1108–1110 of Official Year Book No. 36.

13. **Butter and Cheese Contracts.**—(i) *General.* Details of the war-time contracts arranged between the United Kingdom and Australian Governments whereby the former undertook to purchase Australia's surplus butter and cheese were shown on pp. 985 and 986 of Official Year Book No. 37. The purchase of butter and cheese in 1944–45 and subsequent years has been covered by the Long-Term Purchase Agreement (*see* sub-par. (ii) following).

For the years 1943–44 to 1947–48 the United Kingdom Government reimbursed the Australian Government to the extent of subsidy paid on butter and cheese exported on Ministry of Food account. From 1st July, 1948 to 30th November, 1950 in respect of butter, and for the year 1948–49 in the case of cheese, however, contract prices paid by the United Kingdom Government have been in excess of the basic return to the Australian manufacturer. As a result, subsidy on butter and cheese exported was discontinued from that date and returns from export sales in excess of the basic return to the producer have been credited to the Dairying Industry Stabilization Fund (*see* par. 5 (i) *ante*). The Fund is to be drawn upon to cover the deficiencies in export prices from July, 1949 for cheese and from December, 1950 for butter.

The following tables indicate the prices per cwt. f.o.b. Australian currency for the various grades of butter and cheese for the several war-time contracts, together with the prices payable under the Long-Term Purchase Agreement up to the year 1950–51.

PRICES OF BUTTER, UNITED KINGDOM CONTRACTS.

(s. d.)

Period.	Prices per cwt. f.o.b. Australian currency.						
	Choice.	1st.	2nd.	Pastry.	Whey, 1st.	Whey, 2nd.	Whey, Pastry.
13th November, 1939 to 30th June, 1940	137 2¼	135 7½	131 1¾	127 6	127 6	122 6	117 6
1940–41							
1941–42							
1942–43	142 9¾	141 3	136 9¼	127 6	127 6	122 6	117 6
1943–44	142 9¾	141 3	136 9¼	127 6	133 1½	128 1½	123 1½
1944–45	184 8¼	183 1½	178 7¾	175 0	175 0	170 0	165 0
1945–46							
1946–47	216 10½	215 4	210 7½	206 10½	206 10½	201 10½	196 10½
1947–48 ..	254 4½	252 10	248 1½	244 4½	244 4½	239 4½	234 4½
1948–49	291 10½	290 3¾	285 7½	281 10½	281 10½	276 10½	271 10½
1949–50	313 9	312 4	307 6	303 9	303 9	298 9	293 9
1950–51	339 5	337 11	307 6	303 9	303 9	298 9	293 9

PRICES OF CHEESE, UNITED KINGDOM CONTRACTS.

(s. d.)

Period.	Prices per cwt. f.o.b. Australian currency.		
	Choicest, 1st.	2nd.	3rd.
20th November, 1939 to 30th June, 1940	76 6¾	74 0¾	71 6¾
1940–41			
1941–42	83 9	81 3	78 9
1942–43	87 6	85 0	82 6
1943–44			
1944–45	107 6	105 0	102 6
1945–46			
1946–47	126 3	123 9	121 3
1947–48	145 7½	143 1½	140 7½
1948–49	164 4½	161 10½	159 4½
1949–50	175 0	172 6	170 0
1950–51	188 10	172 6	170 0

(ii) *Long-Term Purchase Agreement.* Early in 1945 an agreement was completed between the United Kingdom and Australian Governments covering the sale to the former of Australia's surplus butter and cheese for the four years 1944–45 to 1947–48. The agreement was later extended to cover the period up to 30th June, 1955. In the original agreement, prices were stipulated for the initial two years ended June, 1946, while any variation in price for the succeeding years was not to exceed 7½ per cent. of the price paid for the preceding year. In accordance with the terms of the agreement, prices were increased for the year 1946–47 and further increases were agreed upon for the years 1947–48 to 1950–51 following representations from the Australian Government after having considered recommendations by the Joint Dairy Industry Advisory Committee (*see* par. 5 above).

The United Kingdom undertakes responsibility for storage costs if unable to provide ships to lift butter and cheese from store after 90 days, and makes advances against stored stock in this event.

The usual provisions relative to quality, packing, etc., continued to obtain, but in regard to payment the United Kingdom now pays the whole of the value on shipment, instead of 97½ per cent. on shipment and 2½ per cent. 60 days after the date of the last bill of lading, as formerly.

14. **Oversea Trade in Butter, Cheese and Milk.**—(i) *General.* The production of butter and cheese in Australia is considerably in excess of local requirements and consequently a substantial surplus is available for export overseas. In normal circumstances the extent of this surplus is chiefly dependent upon the seasonal conditions. In the immediate pre-war period the quantity of butter and cheese consumed annually in Australia was about 101,000 tons and 13,400 tons respectively, and production in excess of these amounts was available as surplus for export. In the post-war period, rationing (until June, 1950) restricted Australian consumption of butter to about 85,000 tons but production is still considerably below the pre-war level, the net result being reduction in the exportable surplus.

Because of war-time requirements due to the presence of Australian and Allied Servicemen in the South-West Pacific Area, exports of butter to the United Kingdom were reduced to a level lower than that attained in any year since 1926–27. During

1938–39, 97,000 tons, or 95 per cent. of all butter exported, was shipped to the United Kingdom, but by 1944–45 exports to this country had decreased to 37,000 tons or 86 per cent. of the total quantity exported. In 1949–50 the quantity shipped to the United Kingdom was 69,700 tons (88 per cent. of the total exports).

With cheese, increased production during the war was accompanied by decreased exports. In 1938–39, exports totalled 16,000 tons of which 15,500 tons were exported to the United Kingdom. By 1944–45, however, the quantity exported to the United Kingdom had declined to 2,800 tons or 18 per cent. of the total of 15,000 tons exported. Since the war, cheese exports have increased greatly and in 1949–50 a total quantity of 22,900 tons was exported, of which 18,000 tons or 78 per cent. was shipped to the United Kingdom.

The following tables show the total imports, exports and net exports of butter, cheese and condensed, concentrated, etc., milk and cream.

BUTTER, CHEESE, MILK, ETC. : IMPORTS AND EXPORTS, AUSTRALIA.

Product.		Average, 1934–35 to 1938–39.	1945–46.	1946–47.	1947–48.	1948–49.	1949–50.
IMPORTS.							
Butter(*a*)	’000 lb.	3	..	..	..	..	..
	£’000	..	..	..	..	..	..
Cheese	’000 lb.	115	296	104	192	101	85
	£’000	7	25	12	20	12	13
Milk and Cream—condensed, concentrated, etc.	’000 lb.	65	214	108	186	386	465
	£’000	2	7	4	7	15	19
EXPORTS.							
Butter	’000 lb.	215,273	137,611	133,642	184,774	183,553	177,452
	£’000	10,379	12,272	12,570	20,629	23,807	24,670
Cheese	’000 lb.	21,379	32,770	53,662	51,017	58,287	51,404
	£’000	609	1,689	2,655	3,263	4,101	4,146
Milk and Cream—condensed, concentrated, etc.	’000 lb.	19,909	58,621	103,116	93,285	98,110	118,034
	£’000	808	2,156	4,234	4,608	5,548	6,627
NET EXPORTS.							
Butter	’000 lb.	215,270	137,611	133,642	184,774	183,553	177,452
	£’000	10,379	12,272	12,570	20,629	23,807	24,670
Cheese	’000 lb.	21,264	32,474	53,558	50,825	58,186	51,319
	£’000	602	1,664	2,643	3,243	4,089	4,133
Milk and Cream—condensed, concentrated, etc.	’000 lb.	19,843	58.407	103,008	93,099	97,724	117,569
	£’000	806	2,149	4,230	4,601	5,533	6,608

(*a*) The average imports of butter for the years 1934–35 to 1938–39 amounted to 2,743 lb. valued at £161. In 1945–46 and each of the following years imports were less than 200 lb. and value less than £30.

(ii) *Butter and Cheese Exports graded according to Quality.* All butter and cheese exported comes under the provisions of the Exports (Dairy Produce) Regulations and is subject to the supervision, inspection and examination of officers appointed for that purpose. These commodities are graded according to quality which has been fixed by regulation as follows :—Flavour and aroma, 50 points ; texture, 30 points ; and condition, 20 points. Butter and cheese graded at 93 to 100 points is of choicest quality ; at 90 to 92 points, first quality ; at 86 to 89 points, second quality ; and at 80 to 85 points, pastry or cooking quality or, in the case of cheese, third quality.

In the following table particulars are given of the relative proportions of butter and cheese graded for export according to quality. Further details, which include actual quantities by States, are to be found in *Primary Industries Bulletin* No. 44, 1949–50.

BULK BUTTER AND CHEESE GRADED FOR EXPORT: AUSTRALIA.
(Per cent.)

Grade.	Butter.			Cheese.		
	1947–48.	1948–49.	1949–50.	1947–48.	1948–49.	1949–50.
Choicest	53.95	49.77	55.31	0.31	0.82	2.73
First Quality	39.56	41.96	37.92	60.84	55.71	66.93
Second Quality	5.44	6.63	5.73	38.85	43.47	30.34
Third Quality(*b*)	1.05	1.64	1.04	(*a*)	(*a*)	(*a*)
Total	100.00	100.00	100.00	100.00	100.00	100.00

(*a*) Included with Second Quality. (*b*) Includes rejected.

§ 3. Pigs and Pig Products.

1. **Pigs.**—Between 1928–29 and 1938–39 the number of pigs fluctuated around one million. In the latter year an upward movement commenced and continued until the record number of 1,797,340 was recorded in 1940–41. There was a decline in the following two years but the numbers rose again to 1,746,721 in 1943–44; thereafter, there was a continuous decline to 31st March, 1950 when the number recorded was 1,123,267. This was followed by a slight rise to 1,133,588 at 31st March, 1951. The distribution of pigs among the States and Territories at 31st March, 1951 was—New South Wales, 316,833; Victoria, 237,127; Queensland, 374,901; South Australia, 67,517; Western Australia, 89,910; Tasmania, 45,446; Northern Territory, 1,122; Australian Capital Territory, 642.

A more accurate index of the development of pig-raising in Australia is provided in the following table, which combines, for each of the years 1938–39 to 1950–51, the number of slaughterings with the total number recorded.

NUMBER OF PIGS AND NUMBER SLAUGHTERED(*a*): AUSTRALIA.

Year.	Number of Pigs.	Number Slaughtered.	Year.	Number of Pigs.	Number Slaughtered.
1938–39 ..	1,155,591	1,829,392	1945–46 ..	1,425,709	1,650,926
1939–40 ..	1,455,341	1,849,582	1946–47 ..	1,273,011	1,591,627
1940–41 ..	1,797,340	2,335,801	1947–48 ..	1,254,683	1,550,163
1941–42 ..	1,414,893	2,581,859	1948–49 ..	1,196,321	1,675,807
1942–43 ..	1,563,000	2,072,921	1949–50 ..	1,123,267	1,556,918
1943–44 ..	1,746,721	1,841,198	1950–51 ..	1,133,588	1,516,270
1944–45 ..	1,630,855	1,922,388			

(*a*) The numbers slaughtered relate to slaughterings for human consumption.

Further details relating to pig numbers are given in Chapter XIX.—Pastoral Production. A graph showing the distribution of pigs in Australia at 31st March, 1948 appears on p. 908 of this Year Book.

2. **Size of Pig Herds.**—A series of special tabulations relating to rural holdings undertaken for all States for the year 1949–50 covered, *inter alia*, a classification of holdings carrying pigs according to size of herd. Full details of these tabulations are published in *Primary Industries Bulletin* No. 44, 1949–50.

3. **Pork.**—(i) *Production.* With Allied Servicemen in Australia during the war years, the demand for pork was considerably increased and producers were encouraged to increase production to the highest level attainable in order to meet Service requirements and maintain exports as far as possible. After these requirements had been met, the quantity available for civilian consumption was much less than that normally consumed. In some States the civilian consumption of pork was negligible, but in other parts of Australia, where transport difficulties precluded the marketing of pork in the main centres, civilian consumption was not prohibited. In the following table details of production in each State are shown for the years 1945–46 to 1949–50 compared with average production during the years 1934–35 to 1938–39.

PRODUCTION OF PORK (BONE-IN WEIGHT).

(Tons.)

Year.	New South Wales.	Victoria	Queensland.	South Australia.	Western Australia.	Tasmania.	Northern Territory.	Australian Capital Territory.	Total
Average, 1934–35 to 1938–39 ..	9,938	12,236	9,867	3,215	1,741	1,240	7	38	38,282
1945–46 ..	6,335	9,595	9,363	4,072	4,749	986	17	3	35,120
1946–47 ..	6,364	7,153	9,011	2,978	3,446	1,039	17	18	30,026
1947–48 ..	6,448	7,138	7,134	2,954	2,234	1,391	28	34	27,361
1948–49 ..	9,831	8,623	12,254	2,358	2,649	1,442	27	56	37,240
1949–50 ..	10,260	6,645	12,911	2,009	1,793	1,208	42	90	34,958

(ii) *Consumption.* For the three pre-war years ended 1938–39 the average annual production of pork was 45,500 tons, of which 13,700 tons were exported, leaving 31,800 tons, or the carcass equivalent of 10.4 lb. per head per annum, available for local consumption.

As in the case of other meats, the demand for pork for the Armed Services and for exports was so great that it was necessary to divert supplies from civilian consumption under the rationing scheme introduced in January, 1944. This resulted in the consumption of pork per head declining from the pre-war average of 10.4 lb. to 9.0 lb. in 1943, to 6.4 lb. in 1944 and to 4.9 lb. in 1945. After 1945 there was a reduction in exports and supplies to the Armed Services and in September, 1946, pork was made available to civilians in all States. Together with other meats, pork was, however, subject to coupon rationing until 21st June, 1948. As a result, consumption per head rose to 5.9 lb. in 1946, 6.8 lb. in 1946–47, 7.1 lb. in 1947–48, and 7.4 lb. per head in 1948–49 and 1949–50. A preliminary estimate of consumption in 1950–51 is 7.0 lb. In the following table details of the production and disposal of pork are shown for the years 1946–47 to 1949–50, compared with corresponding averages for the three years 1936–37 to 1938–39.

PRODUCTION AND DISPOSAL OF PORK (BONE-IN WEIGHT): AUSTRALIA.

('000 tons.)

Year.	Changes in Stock.	Production. (*a*)	Exports.	Canning.	Consumption in Australia.	
					Total.	Per head per annum.
						lb.
Average, 1936–37 to 1938–39	..	45.5	13.7	..	31.8	10.4
1946–47	−4.2	30.0	8.4	2.9	22.9	6.8
1947–48	..	27.4	1.6	1.7	24.1	7.1
1948–49	+0.6	37.3	9.0	1.9	25.8	7.4
1949–50	+[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	7.4

(*a*) Includes an estimate of trimmings from baconer carcasses.

4. **Bacon and Ham.**—(i) *Production.* As in the case of pork, the increased demand for bacon and ham during the war years stimulated production to a level not previously attained. Production reached its peak in 1944–45 when 56,246 tons of bacon and ham were cured. This has been followed by a continuous decline in output in each succeeding year to 40,603 tons in 1949–50. Details of production are shown by States in the following table for the five pre-war years ended 1938–39 and each year 1945–46 to 1949–50.

PRODUCTION OF BACON AND HAM (CURED WEIGHT).

(Tons.)

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	A.C.T.	Australia.
Average, 1934–35 to 1938–39	9,963	7,614	9,269	2,950	2,013	970	1	32,780
1945–46	17,409	9,377	10,699	5,239	4,608	1,255	..	48,587
1946–47	15,830	10,998	9,983	5,069	4,638	1,150	..	47,668
1947–48	14,175	11,159	10,142	4,884	4,232	1,317	..	45,909
1948–49	13,302	10,204	9,412	3,788	3,756	1,122	..	41,584
1949–50	12,955	9,779	10,018	3,318	3,542	991	..	40,603

(ii) *Consumption.* For the three pre-war years ended 1938–39 the annual production of bacon and ham averaged 32,500 tons of which 1,000 tons were exported, leaving 31,500 tons, or 10.2 lb. per head per annum, available for local consumption. The presence of large numbers of Allied Servicemen in Australia during the 1939–45 War necessitated the diversion of civilian supplies. Bacon and ham were not included in the list of rationed meat but supplies to be placed on the civilian market were determined after the demands of the Services and export requirements had been met. Consumption per head declined in the early stages of the war but by 1944 it had been restored to the pre-war level and subsequently increased to 12.7 lb. in 1946–47. This was followed by a fall in consumption to 12.0 lb. in 1947–48, to 10.4 lb. in 1948–49 and to 9.6 lb. in 1949–50. An estimate of consumption in 1950–51 is 8.4 lb. per head. Details of production and disposal of bacon and ham for the periods 1936–37 to 1938–39 and 1946–47 to 1949–50 are shown in the following table.

PRODUCTION AND DISPOSAL OF BACON AND HAM (CURED WEIGHT): AUSTRALIA.

('000 tons).

Year.	Changes in Stock.	Production.	Exports.	Canning.	Consumption in Australia.	
					Total	Per head per annum.
						lb.
Average, 1936–37 to 1938-39 ..	(a)	32.5	1.0	..	31.5	10.2
1946–47	−0.2	47.7	3.3	2.1	42.5	12.7
1947–48	+0.1	45.9	2.7	2.1	41.0	12.0
1948–49	−0.1	41.6	3.4	2.2	36.1	10.4
1949–50	+0.1	40.6	3.2	2.7	34.6	9.6

(a) Not available.

5. **United Kingdom Contracts.**—Details relating to the several war-time contracts and the more recent Long-Term Purchase Agreement between the Governments of the Commonwealth and the United Kingdom for the sale and purchase of Australia's surplus production of meats (including pigmeats) are included in Chapter XIX.—Pastoral Production.

6. **Oversea Trade in Pigs and Pig Products.**—The total oversea trade in pigs and pig products for the years 1945–46 to 1949–50 compared with the average for the five years 1934–35 to 1938–39 is shown in the following table :—

PIGS AND PIG PRODUCTS : IMPORTS AND EXPORTS, AUSTRALIA.

Particulars.		Average, 1934–35 to 1938–39.	1945–46.	1946–47.	1947–48.	1948–49.	1949–50.
				PIGS.			
Imports ..	No.	29	17	42	32	10	15
	£	1,099	785	3,213	2,362	1,084	1,141
Exports ..	No.	151	55	623	941	1,179	813
	£	774	555	3,975	7,743	11,638	17,156
Net Exports	No.	122	38	581	909	1,169	798
	£	−325	−230	762	5,381	10,554	16,016
				BACON AND HAM.(a)			
Imports ..	'000 lb.	7	..	..	..	15	5
	£'000	..	..	..	..	2	..
Exports ..	'000 lb.	1,686	18,857	14,674	8,588	8,661	7,679
	£'000	112	1,700	1,405	865	904	1,016
Net Exports	'000 lb.	1,679	18,857	14,674	8,588	8,646	7,674
	£'000	112	1,700	1,405	865	902	1,016
				LARD.(b)			
Imports ..	'000 lb.	41	..	..	..	..	..
	£'000	1	..	..	..	..	..
Exports ..	'000 lb.	3,742	681	184	136	119	205
	£'000	59	25	8	10	9	15
Net Exports	'000 lb.	3,701	681	184	136	119	205
	£'000	58	25	8	10	9	15
				FROZEN PORK.			
Imports ..	'000 lb.	55	..	12	..	..	..
	£'000	2	..	..	..	..	..
Exports ..	'000 lb.	26,141	30,773	18,705	3,728	20,126	14,975
	£'000	698	1,205	844	209	1,199	1,068
Net Exports	'000 lb.	26,086	30,773	18,693	3,728	20,126	14,975
	£'000	696	1,205	844	209	1,199	1,068

(a) Excludes tinned bacon and ham up to 1938–39. Thereafter includes tinned bacon. (b) For years 1934–35 to 1938–39—includes lard oil and refined animal fats.

NOTE.—Minus sign (—) signifies net imports.

§ 4. Value of Dairy Production (including Pig Farming).

Value of Production.—(i) *Gross and Net Values*, 1948–49 *and* 1949–50. The values of dairy production on a gross, local and net basis are shown in the following table. Production values for this and other industries are dealt with more fully in Chapter XXIX.—Miscellaneous.

GROSS, LOCAL AND NET VALUE OF DAIRY PRODUCTION, 1948–49 AND 1949–50.

(£'000.)

State.	Gross Production valued at Principal Markets.	Marketing Costs.	Gross Production valued at Farm.	Farm Costs.		Net Value of Production. (*a*)	Depreciation (estimated).
				Fodder fed to Farm Stock.	Value of Other Materials used in process of Production.		
1948–49.							
New South Wales ..	25,102	2,414	22,688	2,543	(*b*) 59	20,086	(*c*)
Victoria	26,845	1,158	25,687	2,414	1,014	22,259	100
Queensland ..	19,758	520	19,238	2,280	460	16,498	200
South Australia ..	6,720	161	6,559	988	315	5,256	15
Western Australia ..	4,200	125	4,075	1,421	532	2,122	(*c*)
Tasmania ..	2,596	64	2,532	1,111	(*b*) 90	1,331	12
Total ..	85,221	4,442	80,779	10,757	2,470	67,552	(*d*) 327
1949–50.							
New South Wales ..	29,929	2,868	27,061	2,518	(*b*) 66	24,477	(*c*)
Victoria	32,962	1,410	31,552	3,084	1,293	27,175	100
Queensland ..	22,349	590	21,759	2,580	520	18,659	230
South Australia ..	8,074	200	7,874	642	413	6,819	15
Western Australia ..	4,698	141	4,557	1,507	605	2,445	(*c*)
Tasmania ..	3,099	142	2,957	1,326	(*b*) 104	1,527	13
Total ..	101,111	5,351	95,760	11,657	3,001	81,102	(*d*) 358

(*a*) No deduction has been made for depreciation and maintenance. (*b*) No allowances made for costs of power, power kerosene, petrol and other oils. (*c*) Not available. (*d*) Incomplete.

(ii) *Net Value of Production*, 1934–35 *to* 1949–50. In the following table the net value of dairy production and the net value per head of population are shown by States for the years 1945–46 to 1949–50 in comparison with the averages for the years 1934–35 to 1938–39.

NET VALUE OF DAIRY PRODUCTION.

Year.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Total.
NET VALUE. (£'000)(*a*)							
Average, 1934–35 to 1938–39 ..	9,559	9,622	6,789	1,587	679	589	28,825
1945–46	15,590	15,032	12,479	3,826	1,845	768	49,540
1946–47	14,834	18,038	10,010	4,242	1,922	812	49,858
1947–48	18,443	19,916	14,168	4,985	2,036	992	60,540
1948–49	20,086	22,259	16,498	5,256	2,122	1,331	67,552
1949–50	24,477	27,175	18,659	6,819	2,445	1,527	81,102

(*a*) No deduction has been made for depreciation and maintenance.

NET VALUE OF DAIRY PRODUCTION—*continued.*

Year.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Total.
NET VALUE PER HEAD OF POPULATION. (£ *s.* *d.*)							
Average, 1934–35 to 1938–39 ..	3 11 3	5 3 11	6 17 11	2 13 11	1 9 10	2 10 6	4 4 7
1945–46	5 6 4	7 9 2	11 10 3	6 1 3	3 15 3	3 1 4	6 13 4
1946–47	5 0 2	8 16 10	9 2 6	6 12 5	3 17 4	3 3 9	6 12 8
1947–48	6 2 8	9 12 6	12 14 8	7 12 10	4 0 0	3 15 9	7 18 6
1948–49	6 11 1	10 10 8	14 10 9	7 18 0	4 1 3	4 19 3	8 13 3
1949–50	7 14 4	12 10 5	16 0 10	9 18 7	4 9 7	5 10 1	10 1 6

§ 5. Poultry-Farming.

1. **General.**—Poultry-farming has been carried on in Australia for many years and the State Departments of Agriculture have encouraged its development by appointing experts to advise on the care and management of poultry and by conducting egg-laying competitions.

Originally the industry was conducted in conjunction with other branches of rural activity, mainly dairying, but it is now a specialized and distinct industry and it is from this source that the bulk of the commercial production is obtained. Practically all farms keep poultry for the purpose of supplying their own domestic requirements and in many cases some supplies from this source are also marketed. In addition many private homes keep small numbers of fowls in backyard runs and this helps to maintain domestic needs particularly when eggs are in short supply.

2. **Numbers of Poultry.**—In pre-war years the numbers of the principal kinds of poultry were a normal feature of the annual census of live-stock in all States except Victoria and Tasmania. These data were collected on a restricted scale by all States in 1942–43, the details obtained being confined to farms of 1 acre or more producing eggs or poultry for sale. The collection has since been discontinued in some States. Because of their incompleteness, details of poultry numbers are not published.

3. **Recorded Production and Disposal of Eggs.**—(i) *Shell Eggs.* Available statistics of the production and disposal of eggs in Australia are restricted to those recorded by the Egg Boards of the several States.

Egg Boards, or authorities appointed to control the marketing of eggs, have operated in the States of New South Wales, Victoria and Queensland for some years, whilst in South Australia the Board commenced to operate in August, 1942. It was not until August, 1943 that Advisory Committees were established in Western Australia and Tasmania. These authorities were created under National Security Regulations. Statistics of recorded production of eggs for Australia as a whole are not available, therefore, prior to 1943–44.

In the following table details of receivals and disposals of eggs, as recorded by these authorities, are shown for Australia for the years 1945–46 to 1949–50.

SHELL EGGS: RECEIVALS AND DISPOSALS RECORDED BY EGG BOARDS, AUSTRALIA.

('000 dozen.)

Particulars.	1945–46.	1946–47.	1947–48.	1948–49.	1949–50.
RECEIVALS.					
Stock held at beginning of year	14	1	4	494	554
Receivals from Consignors..	90,599	95,751	92,381	94,308	91,482
Withdrawals from Cold Storage(a)	1,648	1,343	2,586	3,816	4,272
Interstate Transfers ..	858	386	181	397	213
Other Sources	110	2	178	..	..
Total	93,229	97,483	95,330	99,015	96,521
DISPOSALS.					
Sales by Egg Boards ..	45,597	40,296	36,781	35,001	35,900
Packed for Cold Storage(a)	1,590	1,343	2,588	4,022	4,129
Packed for Powder ..	11,055	7,996	3,272	1,725	1,835
Packed for Pulp ..	26,089	30,150	36,207	36,243	29,654
Packed for Export ..	7,225	16,421	14,827	20,172	23,547
Interstate Transfers ..	858	386	181	397	213
Other Disposals	814	887	980	901	856
Stock held at end of year ..	1	4	494	554	387
Total	93,229	97,483	95,330	99,015	96,521
Sales by Producer Agents (not included above) ..	22,454	26,767	27,046	25,901	24,204

(a) Temporary and winter storage.

The movement in production in the respective States is shown in the following table.

SHELL EGGS: PRODUCTION(a) RECORDED BY EGG BOARDS.

('000 dozen.)

State.	1945–46.	1946–47.	1947–48.	1948–49.	1949–50.
New South Wales ..	49,807	54,100	50,569	52,052	52,269
Victoria..	30,933	37,110	36,220	32,842	29,985
Queensland	11,790	9,422	9,693	12,144	11,176
South Australia	12,390	14,252	14,440	14,115	13,089
Western Australia ..	6,968	6,736	7,653	7,939	7,653
Tasmania	1,165	898	852	1,117	1,514
Total	113,053	122,518	119,427	120,209	115,686

(a) Receivals from consignors and sales by producer agents.

(ii) *Egg Pulp*. Prior to the 1939–45 War, production of egg pulp was about 7 million lb. per annum. This was used almost entirely for the manufacture of cakes, pastry and biscuits, only negligible quantities being exported. Production was expanded greatly during the war years to meet the requirements of the Armed Services and has since been maintained at a high level for export purposes and to meet increased local requirements.

Particulars of the production of whole egg pulp as recorded by the Egg Boards in the several States are shown in the following table.

LIQUID WHOLE EGG : PRODUCTION RECORDED BY EGG BOARDS.
('000 lb.)

State.	1945–46.	1946–47.	1947–48.	1948–49.	1949–50.
New South Wales ..	11,930	14,576	14,600	15,966	14,760
Victoria..	8,296	12,854	16,139	14,579	8,565
Queensland	2,526	1,650	3,240	4,560	4,498
South Australia	7,122	7,073	8,510	7,663	6,574
Western Australia ..	1,122	1,295	1,834	1,782	1,837
Tasmania	519	247	189	129	407
Total	31,515	37,695	44,512	44,679	36,641

In addition to liquid whole egg, production was also recorded of liquid egg whites and liquid egg yolks. Output in 1949–50 amounted to 517,000 lb. and 333,000 lb. respectively compared with 485,000 lb. and 323,000 lb. respectively in the previous year.

(iii) *Egg Powder*. The production of dried egg powder was not established in Australia until 1942, when the industry was introduced to treat Australia's surplus eggs so as to maintain exports to the United Kingdom. The shortage of refrigerated shipping space precluded the export of shell eggs so they were converted into powdered form. Since the termination of hostilities in 1945, the manufacture of egg powder has been continued for export purposes, but has been considerably curtailed since 1946–47. Owing, no doubt, to the availability of fresh eggs, a market has not yet been established in Australia. The product now consists almost entirely of sugared egg powder, and recorded production was 908,000 lb. in 1948–49 and 931,000 lb. in 1949–50, the bulk of the production being confined to South Australia.

4. **Production and Consumption of Eggs.**—Statistics of egg production must necessarily be accepted with some reserve. Owing to the difficulties experienced in obtaining a complete census of output, it is more expedient to compute a figure based on the best data available. The production shown in the following table, which shows also details of exports and consumption, is based upon the records of Egg Boards of production from areas under their control plus an estimate of production from uncontrolled areas and an estimate of the production of "back-yard" poultry-keepers. The estimates of total production obtained have been checked with data from other sources and found to be reasonably in accord.

ESTIMATED PRODUCTION AND DISPOSAL OF EGGS IN SHELL: AUSTRALIA.

('000 tons.)(*a*)

Year.	Changes in Stock.	Estimated Total Production.	Exports.	For Drying and Pulping.(*b*)	Consumption in Australia as human food.	
					Total.	Per head per annum.
						lb.
Average, 1936–37 to 1938–39	(*c*)	89.5	7.6	3.2	78.7	25.7
1946–47	— 0.4	121.7	10.5	22.3	89.3	26.6
1947–48	+ 0.4	118.8	8.8	23.7	85.9	25.2
1948–49	+ 0.1	119.4	11.9	22.8	84.6	24.3
1949–50	— 0.3	116.5	14.0	19.0	83.8	23.3

(*a*) The average weight of an egg in Australia is taken as 1.75 oz. (*b*) Includes wastage. (*c*) Not available.

Details of the consumption of shell eggs, liquid whole egg and total shell egg equivalent (expressed in lb. and in number of eggs) per head of population per annum are shown in the following table :—

SUPPLIES OF EGGS AND EGG PRODUCTS MOVING INTO CONSUMPTION: AUSTRALIA.

(lb. per head per annum.)

Commodity.	Average, 1936–37 to 1938–39.	1946–47.	1947–48.	1948–49.	1949–50.
Shell Eggs	25.7	26.6	25.2	24.3	23.3
Liquid Whole Egg and Egg Powder(*a*)	0.9	2.6	2.2	2.8	2.6
Total Shell Equivalent—					
lb. per Head	26.6	29.2	27.4	27.1	25.9
No. per Head(*b*) ..	243	267	251	248	236

(*a*) In terms of weight of shell eggs. (*b*) The average weight of an egg in Australia is taken as 1.75 oz.

5. **Marketing of Eggs.**—(i) *United Kingdom Contracts.* Details of the annual contracts entered into between the United Kingdom and Australian Governments will be found in Official Year Book No. 38, pp. 1048–9.

Negotiations with the United Kingdom Government in respect of the 1950–51 season's prices resulted in an increase of 1.325d. per lb. in the price of frozen whole egg pulp. Prices for eggs-in-shell and egg products other than pulp remained unchanged. The increase in the price of pulp was conditional upon the cessation of packing eggs-in-shell for the United Kingdom by 30th November, in lieu of 24th December as in previous seasons.

In reviewing contract prices for the 1951–52 season, the United Kingdom Government agreed to waive the stipulation that the prices for the 1951–52 season should not exceed those for the previous season by more than 7½ per cent. and granted increases of approximately 25 per cent. on eggs-in-shell and 18 per cent. on egg products.

The prices stipulated in the several contracts for eggs and egg products for the years 1947–48 to 1951–52 are shown in the following table. Contract prices in operation for the years 1939–40 to 1944–45 were shown on page 997 of Official Year Book No. 37, and those for 1945–46 and 1946–47 on page 1049 of Official Year Book No. 38.

EGGS AND EGG PRODUCTS: PRICES UNDER UNITED KINGDOM–AUSTRALIA CONTRACTS.

Australian Currency, f.o.b. Australian Ports.

Year.	Eggs in Shell.(a)	Frozen Whole Egg Pulp.	Whole Egg Powder.	Sugared Egg Powder.
	Per doz.	Per lb.	Per lb.	Per lb.
	s. d.	s. d.	s. d.	s. d.
1947–48	2 1	1 6.75	6 6.50	4 11.48
1948–49	2 4	1 8.75	7 0.00	5 1.00
1949–50	2 7	1 11.05	7 5.88	5 2.63
1950–51	2 7	2 0.38	7 5.88	5 2.63
1951–52	3 3	2 4.75	8 10.25	6 1.75

(a) Price for pack of 15 lb. per long hundred (ten dozens); proportionate adjustments made for other packs.

(ii) *War-time Marketing.* Details of the war-time control of egg marketing under Commonwealth legislation were given on page 998 of Official Year Book No. 37.

(iii) *Egg Export Control Act* 1947. Following the termination of Commonwealth control over the production and marketing of eggs on 31st December, 1947, functions relating to the local marketing of eggs reverted to State Egg Boards which became responsible for stabilizing prices and marketing of eggs produced in the respective States. In order to assist in marketing Australia's surplus production of eggs under the Long-Term Purchase Agreement with the United Kingdom, the Commonwealth established the Australian Egg Board under the Egg Export Control Act 1947. The Board, which commenced to operate on 1st January, 1948, is empowered to buy and sell, on behalf of the Commonwealth Government, eggs and egg products intended for export which comply with the provisions of the Export (Dairy Produce) Regulations. In addition, the Board is authorized to deal with all matters relating to the export of eggs and egg products from Australia, to make such experiments as are likely to lead to the improvement of the quality of Australian eggs and to promote their sale overseas. The Board consists of ten members, including six representatives of egg producers and one representative of the Commonwealth Government.

6. **Oversea Trade in Poultry Products.**—The Australian oversea export of poultry products has in the past been confined chiefly to eggs in shell and egg contents, which are consigned mainly to the United Kingdom. New South Wales, Victoria and South Australia are at present the largest exporters. Exports of eggs from Australia rose from less than 3 million dozen valued at £219,000 in 1928–29 to 21.7 million dozen valued at more than £1.1 million in 1934–35, but declined to 10.3 million dozen in 1939–40. A

high level of exports in 1940–41 was followed by a steep decline down to almost negligible quantities in 1942–43 and 1943–44. Following a slight increase in 1944–45, exports rose to 17.5 million dozen in 1946–47, but fell to 14.5 million dozen in 1947–48. In 1949–50 exports reached the record level of 23.0 million dozen, valued at £2,948,889.

Prior to the 1939–45 War, exports of egg contents were small and in 1939–40 there was an excess of imports. During the war years, exports expanded greatly, mainly to meet Service requirements, and since the close of the war there has been further expansion, although the latest year, 1949–50, shows a considerable decline from the peak year, 1947–48.

Since the close of the war there has also been a remarkable increase in the exports of frozen poultry, which rose from 283,107 pair in 1945–46 to 2,875,641 pair in 1949–50. The average for the pre-war years 1934–35 to 1938–39 was only 37,913 pair.

The oversea trade during the five years ended 1949–50 in comparison with the average for the five years ended 1938–39 was as follows :—

POULTRY PRODUCTS : IMPORTS AND EXPORTS, AUSTRALIA.

Particulars.		Average, 1934–35 to 1938–39.	1945–46.	1946–47.	1947–48.	1948–49.	1949–50.
				LIVE POULTRY.			
Imports ..	No.	628	26	52	15	..	..
	£	396	171	454	16	..	..
Exports ..	No.	1,464	16,562	115,798	73,942	80,020	78,882
	£	663	10,745	7,308	7,054	7,864	10,392
Net Exports	No.	836	16,536	115,746	73,927	80,020	78,882
	£	267	10,574	6,854	7,038	7,864	10,392
				FROZEN POULTRY.			
Imports ..	pair	5,564	3	..	..	..	100
	£	222	3	..	..	..	32
Exports ..	pair	37,913	283,107	957,724	1,870,623	2,493,011	2,875,641
	£	29,744	208,635	872,257	1,709,066	2,643,895	2,793,306
Net Exports	pair	32,349	283,104	957,724	1,870,623	2,493,011	2,875,541
	£	29,522	208,632	872,257	1,709,066	2,643,895	2,793,274
				EGGS IN SHELL.			
Imports ..	doz.	27,131	100	202	883	945	9
	£	1,567	189	139	356	310	8
Exports ..	doz.	13,397,895	7,291,224	17,493,879	14,518,033	19,604,715	23,046,749
	£	867,719	638,014	1,416,549	1,575,073	2,360,464	2,948,889
Net Exports	doz.	13,370,764	7,291,124	17,493,677	14,517,150	19,603,770	23,046,740
	£	866,152	637,825	1,416,410	1,574,717	2,360,154	2,948,881
				EGG CONTENTS.			
Imports ..	lb.	42,000	600	456	505	116	1,067
	£	3,044	157	317	319	38	926
Exports ..	lb.	432,000	17,689,631	29,803,117	30,618,675	29,185,632	17,634,519
	£	14,079	1,452,066	3,097,208	2,600,378	2,743,958	2,072,178
Net Exports	lb.	390,000	17,689,031	29,802,661	30,618,170	29,185,516	17,633,452
	£	11,035	1,451,909	3,096,892	2,600,059	2,743,920	2,071,252

7. **Value of Poultry Products.**—(i) *Gross and Net Values*, 1949–50. Difficulty is experienced in obtaining complete figures for the production of poultry products. The following table sets out the values accruing to the poultry industry in Australia on a gross, local and net basis for the year 1949–50, and has been compiled from data actually collected or carefully estimated by the State Statisticians :—

GROSS, LOCAL AND NET VALUE OF POULTRY PRODUCTS, 1949–50.

(£'000.)

State.	Gross Production valued at Principal Markets.	Marketing Costs.	Gross Production valued at Farm.	Feed and Other Costs.	Net Value of Production. (a)
New South Wales ..	14,438	1,035	13,403	4,217	9,186
Victoria	11,405	856	10,549	2,317	8,232
Queensland.. ..	1,647	234	1,413	570	843
South Australia ..	3,180	230	2,950	770	2,180
Western Australia ..	1,741	325	1,416	575	841
Tasmania	1,081	81	1,000	54	946
Total ..	33,492	2,761	30,731	8,503	22,228

(a) No deduction has been made for depreciation and maintenance.

(ii) *Net Value of Production*, 1934–35 *to* 1949–50. In the following table the net value of poultry products and the net value per head of population are shown by States for the years 1945–46 to 1949–50 compared with the average for the five years ended 1938–39 :—

NET VALUE OF POULTRY PRODUCTS.

Year.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Total.
NET VALUE. (£'000.)(a)							
Average, 1934–35 to 1938–39 ..	2,229	2,567	321	321	285	351	6,074
1945–46	5,887	5,666	1,172	1,251	584	569	15,129
1946–47	6,073	5,358	812	1,478	453	531	14,705
1947–48	6,956	5,975	806	1,914	375	718	16,744
1948–49	8,123	7,829	853	1,834	671	886	20,196
1949–50	9,186	8,232	843	2,180	841	946	22,228
NET VALUE PER HEAD OF POPULATION. (£ *s. d.*)							
Average, 1934–35 to 1938–39 ..	0 16 7	1 7 9	0 6 6	0 10 11	0 12 6	1 10 1	0 17 10
1945–46	2 0 2	2 16 3	1 1 7	1 19 8	1 3 10	2 5 6	2 0 9
1946–47	2 1 0	2 12 6	0 14 10	2 6 2	0 18 3	2 1 9	1 19 1
1947–48	2 6 3	2 17 9	0 14 6	2 18 9	0 14 9	2 14 10	2 3 10
1948–49	2 13 1	3 14 1	0 15 0	2 15 1	1 5 8	3 6 1	2 11 9
1949–50	2 17 11	3 15 11	0 14 6	3 3 6	1 10 10	3 8 2	2 15 3

(a) No deduction has been made for depreciation and maintenance.

§ 6. Bee-Farming.

1. **General.**—Although practised as a separate industry, bee-farming is also carried on in conjunction with other branches of farming, but its place in Australia's rural economy is not very significant. The returns of honey from productive hives during 1949–50 showed an average of 78.25 lb. per hive and the average quantity of wax was 0.99 lb. per productive hive.

2. Production of Honey and Bees-wax.—The number of hives and the production of honey and bees-wax during the year 1949–50 are shown in the following table. As these details have been collected from holdings of one acre and upwards, any production from smaller areas is omitted and consequently the production is understated to that extent. In Victoria and South Australia, however, the compulsory registration of bee-keepers enables the collection to cover all producers and the production for these States is considered to be complete.

BEEHIVES, HONEY AND BEES-WAX, 1949–50.

State.	Beehives.			Honey Produced.		Bees-wax Produced.	
	Productive.	Unproductive.	Total.	Quantity.	Gross Value.	Quantity.	Gross Value.
	'000.	'000.	'000.	'000 lb.	£	lb.	£
New South Wales ..	113	66	179	9,227	288,344	117,939	17,691
Victoria	82	33	115	7,744	258,129	78,124	11,719
Queensland ..	24	17	41	1,187	37,103	22,162	3,694
South Australia ..	83	28	111	5,179	151,038	70,442	9,686
Western Australia	22	5	27	2,041	42,978	32,045	5,007
Tasmania ..	4	1	5	285	10,700	3,724	700
Australia(*a*) ..	328	150	478	25,663	788,292	324,436	48,497

(*a*) Excludes Australian Capital Territory.

The production of honey and bees-wax fluctuates considerably and is determined mainly by the flow of nectar from flora of the eucalypts, which varies greatly from year to year. However, in recent years there has been a pronounced upward trend in the output of honey and figures for 1948–49 were an all-time record at 53,203,000 lb. In 1949–50, recorded production was 25,663,000 lb.

The table hereunder shows the production of honey and bees-wax for the five years ended 1949–50 in comparison with the averages for the years 1934–35 to 1938–39.

HONEY AND BEES-WAX PRODUCTION.

Year.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Aust.(*a*)
			HONEY ('000 lb.).				
Average, 1934–35 to 1938–39 ..	3,827	3,600	689	3,388	1,125	181	12,810
1945–46	3,916	4,064	1,841	3,182	1,689	213	14,905
1946–47	9,017	9,031	1,615	8,673	2,470	189	30,995
1947–48	9,776	6,934	1,895	5,298	1,732	208	25,843
1948–49	26,008	8,730	3,045	10,906	4,290	221	53,200
1949–50	9,227	7,744	1,187	5,179	2,041	285	25,663
			BEES-WAX (lb.).				
Average, 1934–35 to 1938–39 ..	55,927	41,856	10,318	41,083	18,855	2,382	170,421
1945–46	57,490	43,777	28,887	43,344	18,280	3,003	194,841
1946–47	111,916	95,524	29,774	105,788	27,560	2,273	372,835
1947–48	113,211	70,851	32,147	85,405	19,598	3,144	324,356
1948–49	295,892	90,778	47,184	140,384	55,239	2,944	632,441
1949–50	117,939	78,124	22,162	70,442	32,045	3,724	324,436

(*a*) Excludes Australian Capital Territory.

3. **Value of Production.**—(i) *Gross and Net Values*, 1949–50. The following table shows the gross, local and net values of production which have been compiled by the Statisticians of the several States by uniform methods. These data are based upon actual records but, as previously explained, it is known that the production in some States is understated. As production costs are not known they are not taken into account, and consequently, the gross production valued at the farm and net values shown are identical :—

GROSS, LOCAL AND NET VALUE OF BEE PRODUCTS, 1949–50.

(£'000.)

State.	Gross Production Valued at Principal Markets.	Marketing Costs.	Gross Production Valued at Farm.	Net Value of Production.(*a*)
New South Wales	306	26	280	280
Victoria	270	34	236	236
Queensland	41	6	35	35
South Australia	161	20	141	141
Western Australia	48	8	40	40
Tasmania	11	..	11	11
Total	837	94	743	743

(*a*) No deduction has been made for depreciation and maintenance.

(ii) *Net Value of Production*, 1934–35 *to* 1949–50. In the following table the net value of bee products and the net value per head of population are shown by States for the years 1945–46 to 1949–50 compared with the average for the five pre-war years ended 1938–39 :—

NET VALUE OF BEE PRODUCTS.

Year.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Total.
NET VALUE.(£'000.)(*a*)							
Average, 1934–35 to 1938–39 ..	60	49	8	30	15	3	165
1945–46	119	115	49	77	46	6	412
1946–47	272	256	48	218	73	6	873
1947–48	293	196	55	136	50	8	738
1948–49	782	247	92	276	104	8	1,509
1949–50	280	236	35	141	40	11	743
NET VALUE PER HEAD OF POPULATION (*s. d.*)(*a*)							
Average 1934–35 to 1938–39 ..	0 5	0 6	0 2	1 1	0 8	0 3	0 6
1945–46	0 9	1 1	0 11	2 6	1 11	0 6	1 1
1946–47	1 10	2 6	0 10	6 10	2 11	0 6	2 4
1947–48	1 11	1 11	1 0	4 2	1 11	0 7	1 11
1948–49	5 1	2 4	1 7	8 4	4 0	0 7	3 10
1949–50	1 9	2 2	0 7	4 1	1 6	0 10	1 10

(*a*) No deduction has been made for depreciation and maintenance nor for the value of other materials used in the process of production.

4. **Oversea Trade in Bee Products.**—Prior to the 1939–45 War the production of honey exceeded Australian requirements and a small quantity was available for export. As a result of increased production, exports have risen considerably since 1938–39, when a quantity of 687,000 lb. of honey, valued at £13,957, was shipped. In 1948–49 the record quantity of 32.09 million lb., valued at £1,217,193, was exported, and in 1949–50, exports were 20.77 million lb., valued at £814,115.

The wider use of frame hives reduced the production of wax, and as a result the quantity imported exceeded that exported, but in recent years production has been high on account of exceptionally good seasons, and exports have exceeded imports by substantial margins.

Particulars of the oversea trade in honey and bees-wax are shown in the following table for the five years ended 1949–50 in comparison with the average of the years 1934–35 to 1938–39.

HONEY AND BEES-WAX : IMPORTS AND EXPORTS, AUSTRALIA.

Particulars.		Average, 1934–35 to 1938–39.	1945–46.	1946–47.	1947–48.	1948–49.	1949–50.
HONEY.							
Imports ..	lb.	46,291	..	378	160	183	30
	£	992	..	21	10	11	1
Exports ..	lb.	1,027,998	7,547,977	13,928,488	14,985,753	32,093,514	20,768,811
	£	17,017	292,880	556,605	579,285	1,217,193	814,115
Net Exports	lb.	981,707	7,547.977	13,928,110	14,985,593	32,093,331	20,768,781
	£	16,025	292,880	556,584	579,275	1,217,182	814,114
BEES-WAX.							
Imports ..	lb.	73,321	319,501	5,320	1,467	27,254	353
	£	4,770	34,076	1,188	314	4,094	81
Exports ..	lb.	15,787	5,025	36,865	98,054	77,187	355,289
	£	926	905	6,107	16,172	11,832	53,443
Net Exports	lb.	−57,534	−314,476	31,545	96,587	49,933	354,936
	£	− 3,844	− 33,171	4,919	15,758	7,738	53,362

NOTE.—The minus sign (−) signifies net imports.

§ 7. Exports of Australian Farmyard, Dairy and Bee Products.

The quantities and values of Australian farmyard, dairy and bee products exported during each of the five years ended 1949–50 are shown below in comparison with those of 1938–39.

AUSTRALIAN FARMYARD, DAIRY AND BEE PRODUCTS: EXPORTS OF AUSTRALIAN ORIGIN.

QUANTITY.

Particulars.	Unit of Quantity.	1938–39.	1945–46.	1946–47.	1947–48.	1948–49.	1949–50.
Bees-wax	lb.	5,565	5,025	36,865	98,050	77,187	355,289
Butter	'000 lb.	229,543	137,611	133,642	184,774	183,554	177,452
Cheese	,,	35,924	32,766	53,555	50,944	58,287	51,404
Eggs in shell ..	'000 doz.	10,144	7,291	17,494	14,518	19,605	23,047
Eggs not in shell—							
Egg pulp	'000 lb.	650	17,690	23,316	25,981	27,041	16,827
Egg powder ..	,,			6,488	4,638	2,144	807
Feathers, undressed ..	..	(a)	(a)	(a)	(a)	(a)	(a)
Honey	'000 lb.	687	7,548	13,928	14,986	32,094	20,769
Lard	,,	(b) 5,491	681	184	136	119	205
Meats—							
Bacon and ham ..	,,	(c) 1,739	18,857	14,674	8,588	8,661	7,679
Frozen poultry ..	'000 pair	22	283	958	1,871	2,493	2,876
Frozen pork ..	'000 lb.	30,716	30,773	18,705	3,728	20,126	14,975
Milk—							
Condensed, Preserved, etc.—							
Sweetened Full Cream ..	,,	12,572	39,881	74,107	66,639	66,000	70,495
Skim ..	,,	..	556	2	..	243	2
Unsweetened ..	,,	754	9,647	9,631	3,342	3,316	1,862
Dried or Powdered—							
Full Cream ..	,,	3,001	5,948	10,307	14,049	14,149	23,865
Skim	,,	575	1,090	3,565	5,644	10,174	19,072
Infants' and Invalids' Foods—							
Essentially of milk ..	,,	1,637	2,768	2,843	3,416	6,250	7,002
Other ..	,,	..	899	2,874	4,036	5,195	5,453
Malted	,,	565	2,054	3,421	3,609	4,227	2,738
Pigs, live	No.	61	55	623	941	1,179	813
Poultry, live ..	,,	2,189	16,562	115,798	73,942	80,020	78,882

VALUE.(£.)

Particulars.	1938–39.	1945–46.	1946–47.	1947–48.	1948–49.	1949–50.
Bees-wax	148	905	6,107	16,166	11,832	53,443
Butter	12,891,837	12,271.662	12,569.922	20,629,483	23,806,663	24,669.790
Cheese	1,073,931	1,688,700	2,643,355	3,253,273	4,100,641	4,145,462
Eggs in shell	638,159	638,014	1,416,549	1,575,073	2,360,464	2,948,889
Eggs not in shell—						
Egg pulp..	23,014	1,452,066	1,637,800	1,811,520	2,457,185	1,906,219
Egg powder			1,459,316	788,858	286,773	165,959
Feathers, undressed	307	1,487	8,304	9,947	8,294	2,026
Honey	13,957	292,880	556,605	579,285	1,217,193	814,115
Lard	(b) 67,744	24,870	7,751	9,628	8,995	14,784
Meats—						
Bacon and ham	(c) 119,994	1,700,266	1,404,610	865,201	903,673	1,016,263
Frozen poultry	19,917	208,635	872,257	1,709,066	2,643,895	2,793,306
Frozen pork	882,117	1,204,846	843,935	208,717	1,199,034	1,067,844
Milk—						
Condensed, Preserved, etc.—						
Sweetened Full Cream ..	405,913	1,418,077	2,906,578	3,077,093	3,441,735	3,612,703
Skim	..	20	84	..	13,166	88
Unsweetened	19,120	289,433	305,383	126,050	91,169	88,035
Dried or Powdered—						
Full Cream	92,835	256,495	501,923	906,713	1,220,512	1,955,665
Skim	6,160	29,209	111,750	188,383	412,835	713,435
Infants' and Invalids' Foods—						
Essentially of milk ..	209,925	211,472	231,167	306,363	579,767	684,838
Other	..	160,924	457,500	649,706	702,782	658,486
Malted	57,058	162,758	285,162	309,807	369,057	256,938
Pigs, live	371	555	3,975	7,743	11,638	17,156
Poultry, live	970	10,745	7,308	7,054	7,864	10,392
Total	16,523,477	22,024,019	28,237,341	37,035,129	48,855,167	47,595,836

(a) Quantity not available. (b) Includes lard oil and refined animal fats. (c) Excludes tinned bacon.

§ 8. Imports of Dairy and Farmyard Products into United Kingdom.

NOTE.—Values of imports in this section are expressed in £ sterling.

1. **Summary, Principal Products.**—The following table shows the quantities and values of the principal dairy products imported into the United Kingdom during the years 1939 and 1946 to 1950

DAIRY PRODUCTS: IMPORTS INTO UNITED KINGDOM.

Product.		1939.	1946.	1947.	1948.	1949.	1950.
Butter ..	..'000 cwt.	8,737	4,227	4,325	5,452	6,360	6,706
	£'000	48,424	37,347	42,911	67,827	86,873	90,357
Cheese ..	..'000 cwt.	2,845	4,073	3,825	3,147	4,259	3,080
	£'000	8,869	26,209	31,455	26,452	38,508	27,594
Milk, powdered and preserved	'000 cwt.	1,699	2,563	1,436	1,023	2,238	1,298
	£'000	2,818	10,331	10,080	4,975	10,582	6,259
Bacon and ham	..'000 cwt.	7,953	3,638	2,728	2,761	2,804	5,189
	£'000	37,105	24,155	21,836	28,872	32,158	63,372
Pork, chilled or frozen	'000 cwt.	989	1,598	287	224	602	612
	£'000	3,036	8,830	1,655	1,244	4,904	5,189
Eggs, dried	..'000 cwt.	10	915	677	116	98	310
	£'000	85	30,784	23,911	3,611	3,023	2,972
Eggs in shell	..'000 doz.	283,315	81,330	115,615	151,764	209,814	167,618
	£'000	12,835	9,287	13,460	21,577	30,522	21,515

2. **Butter.**—(i) *Imports.* Australia has for many years supplied a large proportion of the butter imported into the United Kingdom. The quantity in 1950 amounted to 1,319,614 cwt., or 19.68 per cent. of the total importation. The Australian contribution was valued at £17,410,329 and was exceeded by that received from New Zealand and Denmark. Australia and New Zealand combined supplied 57.77 per cent. of the total quantity imported during 1950 and Denmark, 37.65 per cent.

In the following table particulars of the quantity and value of butter imported into the United Kingdom are shown for the years 1938 and 1950 according to country of origin.

BUTTER: IMPORTS INTO UNITED KINGDOM.

Country from which Imported.	1938.		1950.	
	Quantity.	Value.	Quantity.	Value.
	Cwt.	£	Cwt.	£
New Zealand	2,592,251	14,524,140	2,554,414	33,861,826
Australia	1,797,811	9,629,939	1,319,614	17,410,329
Other British Countries	422,704	2,454,725	5,002	67,056
Argentine Republic..	89,876	407,678	..	..
Denmark	2,364,799	12,960,434	2,524,474	34,922,068
Netherlands	711,910	3,465,835	299,697	4,059,242
Other Foreign Countries	1,538,562	7,430,382	2,639	36,171
Total	9,517,913	50,873,133	6,705,840	90,356,692

(ii) *London Prices.* In the following table the prices shown up to and including September, 1939 represent the mean of the top prices quoted weekly for choicest salted Australian butter together with their f.o.b. equivalents in Sydney and Melbourne in terms of Australian currency. Since September, 1939, the price represents that fixed in accordance with the contract between the Governments of Australia and the United Kingdom for choicest Australian Butter. Pence have been omitted throughout.

AVERAGE PRICE PER CWT. OF AUSTRALIAN CHOICEST BUTTER IN LONDON (WITH F.O.B. EQUIVALENTS IN AUSTRALIAN CURRENCY).

Month.	1938–39.		1939–40.		Year.	London.	Australia.
	London.	Australia.(a)	London.	Australia.			
	Shillings (Stg.).	Shillings (Aust.).	Shillings (Stg.).	Shillings (Aust.).		Shillings (Stg.).	Shillings (Aust.).
						(b)	(c)
July ..	120	135	114	(a) 127	1940–41 ..	110	137
August ..	118	132	110	(a) 123	1941–42 ..	110	137
September ..	116	130	120	(a) 135	1942–43 ..	114	143
October ..	111	124	(b) 110	(c) 137	1943–44 ..	114	143
November ..	104	115	(b) 110	(c) 137	1944–45 ..	148	185
December ..	107	119	(b) 110	(c) 137	1945–46 ..	148	185
January ..	120	134	(b) 110	(c) 137	1946–47 ..	173	217
February ..	118	132	(b) 110	(c) 137	1947–48 ..	203	254
March ..	115	128	(b) 110	(c) 137	1948–49 ..	233	292
April ..	113	126	(b) 110	(c) 137	1949–50 ..	251	314
May ..	107	119	(b) 110	(c) 137	1950–51 ..	272	339
June ..	113	126	(b) 110	(c) 137	1951–52 ..	292	365

(a) Sydney and Melbourne. (b) Contract price f.o.b. Australian ports. (c) Equivalent of contract price.

3. **Cheese.**—The value of cheese imported into the United Kingdom in 1950 was £27,593,837. Of this, £12,452,665 represented imports from New Zealand, £4,921,806 imports from Canada, £2,487,331 from Australia, and £1,011,444 from the United States of America.

4. **Bacon.**—Of a total import in 1950 of bacon valued at £54,706,357, the value of that supplied by Denmark was £31,368,320, Canada, £9,179,974, and the Netherlands, £4,701,154.

5. **Pork.**—The value of the United Kingdom imports of pork (frozen and chilled) was £5,189,031 in 1950. Imports from New Zealand, valued at £1,119,342, and Australia, £707,443 comprised 35.21 per cent. of the imports into the United Kingdom.

6. **Eggs.**—In 1950 the value of eggs imported into the United Kingdom was £29,278,492, comprising eggs-in-shell, £21,515,330, liquid or frozen eggs, £4,791,548, and dried eggs, £2,971,614. The Australian share in this trade amounted to £2,938,427. Eggs-in-shell were supplied by Denmark, £13,104,069 and Irish Republic, £4,731,061. The principal exporters of dried eggs to the United Kingdom were the United States of America, £1,945,139 and Canada, £873,750.

7. **Milk Products.**—In 1950 the value of powdered and preserved milk imported into the United Kingdom was £6,259,217, comprising condensed milk, sweetened, £1,421,381, condensed milk, unsweetened, £1,011,162 and powdered milk, £3,826,674. Australia supplied unsweetened milk powder valued at £1,162,508.

8. **Other Products.**—The imports into the United Kingdom from Australia of poultry and frozen rabbits and hares amounted to £2,052,344, and £945,714 respectively, while those of bees-wax, game, lard and honey in 1950 were unimportant.

CHAPTER XXII.

FORESTRY.[*]

§ 1. General.

1. **Objects of Forestry.**—Forestry is a profession based on science, art and economic and business principles, which aims to protect and treat forests as restorable resources to provide their maximum direct and indirect benefits to a country.

The direct benefits lie in the providing of essential commodities such as structural timber, poles, piles, sleepers, pulpwood, firewood, tans, oils, resins, etc. and the provision of an avenue for the employment of labour in forestry and associated and dependent industries. The indirect benefits include the regulation of stream flow from catchment areas, by providing conditions ideal for the maximum penetration into the soil of rainfall and other precipitations. Floods, the effects of reduced and/or intermittent flow of streams, and the ravages of water erosion are thereby minimized, and the effects of aeolian or wind erosion are lessened. Neither the direct nor the indirect benefits of forests are fully appreciated until they are seriously reduced or until their absence brings about a situation which is a matter of public concern.

Australia has a particular interest in water and soil conservation because the area suitable for agricultural and pastoral development is not so large that material reduction in extent or deterioration of productive capacity cannot but limit expansion and retard development, and because of the potential susceptibility of many parts to water and wind erosion; moreover, the water conservation and irrigation schemes, constructed at the cost of millions of pounds to ensure the successful cropping of very large areas, are ultimately dependent on regular stream flow and minimum siltation.

Forestry aims to protect existing forests from the ravages of fire, insect, fungus and destructive agencies generally; to improve the quality and condition of forests by carrying out judicious fellings; to control exploitation so that the forest increment and not the forest capital is removed; to regenerate cut over areas; to afforest with native or exotic species denuded lands, or those which for protection or other reasons are from a national point of view better under forest than under any other crop.

2. **General Account of Forests and Timbers.**—Compared with Australia's land area of approximately three million square miles, the area of forest land capable of producing commercial timber has always been very small, occupying in the main the wetter belts of the coastal areas and the near coastal highlands. In the early days of settlement the forests, however, appeared to the small population to be practically inexhaustible. In those early days timbers were exploited chiefly on account of their accessibility, ease of working and general utility regardless of their intrinsic merits, and so it was that what are now regarded as superlative furniture and cabinet timbers were often put to quite inferior uses. Clearing of forest land by axe and fire stick to make room for crops and pastures has bitten deeply into the original forest estate which has been further degraded by recurrent forest fires. In retrospect, the damage and waste of the past is appalling, but it marked a phase of forest and timber loss which has been paralleled in the vigorous pioneering activity of the early history of many countries.

Predominantly the forests of Australia consist of relatively coarse bluish green foliaged evergreen hardwoods. The characteristic genus is Eucalyptus, embracing five to six hundred species, which with few exceptions are endemic to Australia. The genus includes such species as the mountain ash (*E. regnans*) of Victoria and Tasmania, and karri (*E. diversicolor*) of Western Australia, both of which for height and grandeur have few equals in the world. At the other end of the scale of size of species of this genus are dwarf types, including the small multiple stemmed species collectively known as the " mallees ", which thrive in some of the drier belts. Probably not more than 80 to 90 of the eucalypts are used for sawmilling in Australia and, for one reason or another, not more than 30 to 40 are extensively exploited.

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[*] A specially contributed article dealing with Forestry in Australia appeared as part of this chapter in Official Year Book No. 19 (*see* pp. 701–12 therein). *See* also "The Commercial Timbers of Australia, Their Properties and Uses" by I. H. Boas, published by the Council for Scientific and Industrial Research in 1947, "Timbers and Forest Products of Queensland" by E. H. S. Swain, published in 1928 and "Australian Standard Nomenclature of Australian Timbers" published by the Standards Association of Australia.

Among these outstanding eucalypts are—

> Blackbutt (*E. pilularis*) of New South Wales and Queensland; Tallowwood (*E. microcorys*) of New South Wales and Queensland; Spotted Gum (*E. maculata*) of New South Wales and Queensland; Ironbarks (*E. spp.*) of New South Wales, Victoria and Queensland; Alpine Ash (*E. gigantea*) of New South Wales, Victoria and Tasmania; Redgum (*E. camaldulensis*) of New South Wales, Victoria and South Australia; Mountain Ash (*E. regnans*) of Victoria and Tasmania; Messmate, Stringybark or Tasmanian Oak (*E. obliqua*) of New South Wales, Victoria and Tasmania; Jarrah (*E. marginata*) of Western Australia; Karri (*E. diversicolor*) of Western Australia.

The range and properties of eucalypt timbers are very great indeed. They fulfil all Australia's requirements where strength and durability are required, for example in such uses as railway sleepers, poles, piles, beams, girders, telegraph crossarms, waggon scantlings, posts, house blocks, wheelwright timber, as well as for fuel, etc. In large measure they also meet general building requirements and, to a lesser extent perhaps, export packaging requirements. In recent years certain of the eucalypts have been extensively pulped for paper-making and, less widely, for the manufacture of hardboard.

A large number of other genera represented in the Australian forest flora also produce commercial hardwoods. Among the outstanding furniture cabinet and veneer timbers are red cedar (*Cedrela toona var. australis*), Queensland maple (*Flindersia brayleyana*), Southern and Northern silky oak (*Grevillea robusta* and *Cardwellia sublimis*, respectively), Queensland walnut (*Endiandra palmerstoni*), blackwood (*Acacia melanoxylon*), rose mahogany (*Dysoxylum fraseranum*), etc. Turpentine (*Syncarpia laurifolia*) ranks with the world's best as a harbour piling timber and swamp box (*Tristania suaveolens*) is almost as good. Coachwood (*Ceratopetalum apetalum*) came into prominence for rifle furniture and for aircraft ply during the last war. The foregoing are but a few examples indicating the range of use of the timbers of the Australian hardwood forests.

Indigenous softwood resources have never been large and are now seriously depleted. A remnant only remains of the forests of hoop pine (*Araucaria cunninghamii*), bunya pine (*Araucaria bidwilli*) of New South Wales and Queensland, kauri (*Agathis spp.*) of Queensland, and huon pine (*Dacrydium franklinii*), celerytop pine (*Phyllocladus rhomboidalis*) and King William pine (*Athrotaxis selaginoides*) of Tasmania.

There are still considerable areas of the slow-growing but useful white ant resisting cypress (*Callitris spp.*) in the forests of the inland areas of Queensland, New South Wales and Victoria, but many of them are being overcut and in some localities regeneration of the forests presents difficulties.

The savannah forests of the interior yield minor products such as sandalwood and tan barks, and the leaves of some of the mallees are used for oil distillation.

3. **Extent of Forests.**—According to data submitted by State Forestry authorities for the Empire Forestry Conference in 1947, the total area of forest is 119,402 square miles, or about 4 per cent. of the total land area of Australia. This forest area is distributed between the different States as follows:—New South Wales and Australian Capital Territory, 19,364 square miles; Victoria, 27,025; Queensland, 27,050; South Australia, 5,909 (excluding 4,600 square miles of mallee containing firewood only); Western Australia, 27,154; Tasmania, 12,900; total, 119,402 square miles.

The South Australian authorities especially emphasize that, after excluding the mallee firewood areas, the percentage of the remaining forest comparable with even mediocre forest land in other States is so small as to be almost negligible. Apart from this specific case it seems clear that there is considerable variation in the standards adopted for the definition of forest land. Also it should be emphasized that the figures given are stated to be rough estimates only. Furthermore, it is generally agreed that the figures for forest areas given are often far in excess of those which are both suitable for reservation and likely to be maintained for timber production. Considering these facts the proportion of Australia carrying commercial forests is very low. On the other hand it should be noted that approximately 68 per cent. of the area of the continent is practically uninhabited and carries less than one person in every eight square miles.

The table below shows a classification of the estimated total forest area referred to above :—

CLASSIFICATION OF FOREST AREA : AUSTRALIA.

(Square miles.)

Class of Forest.	State Forest.	Communal Forest.	Private Forest.	Total.	
				Area.	Proportion of Total Forest Area.
					Per cent.
Exploitable—					
Softwood	3,858	16	1,832	5,706	4·8
Mixed wood	1,033	..	94	1,127	0·9
Hardwood	32,016	780	13,146	45,942	38·4
Total	36,907	796	15,072	52,775	44·1
Potentially Exploitable—					
Softwood	200	..	278	478	0·4
Mixed wood	100	..	..	100	0·1
Hardwood	16,853	141	7,848	24,842	20·9
Total	17,153	141	8,126	25,420	21·4
Other Land Classed as Forest	34,798	..	6,409	41,207	34·5
Grand Total	88,858	937	29,607	119,402	
Proportion of Total Forest Area .. ..Per cent.	74·3	0·8	24·9	..	100·0

The bulk of the softwood forest areas of approximately 4,000 square miles are in Queensland and New South Wales. The softwood forest areas given for these States represent natural forest, a large proportion of which consists of slow-growing native cypress (*Callitris spp.*) in low rainfall areas, and the per acre volume of which is comparatively low.

4. Forest Reservations.—The rate at which the original forest estate was being diminished had exercised the minds of far-sighted individuals as long ago as the eighties of last century and it was about that time that the first large forest reservations were made. Over the years recognition that forest reservations were inadequate became more general. It was not, however, until an Interstate Forestry Conference was held at Hobart in 1920 that a specific target to be aimed at was mentioned. The figure then agreed upon was an area of 24½ million acres of indigenous forest, which it was considered should be permanently reserved to meet the future requirements of Australia.

The forest reservations in Australia at 30th June, 1950 totalled 27,856,655 acres of which 20,452,579 acres are described as Dedicated State Forests, and 7,404,076 acres as Timber and Fuel Reserves. The distribution of these areas is shown by States in § 4. 2 hereafter.

In general the timber and fuel reserves are temporary only and are liable to be alienated after the timber on them has been exploited. Some of these areas contain land of high value for forestry purposes, but the greater part does not justify permanent reservation.

If the permanently reserved areas were all of good quality, accessible, and fully productive forests supplying the class of timber required, they could be regarded as adequate for a much larger population than exists in Australia at the present time. Actually, however, a considerable proportion is in inaccessible mountainous country and many of the forests contain a mixture of species, some only of which are at present of commercial value: a good proportion consists of inferior forest and a large proportion of the whole has been seriously degraded by recurrent fires. Also the indigenous forest does not contain adequate supplies of softwoods producing commercial timbers, of which our needs have to be largely met by softwood timber imported from other countries.

It is freely acknowledged by Australian forestry authorities that information on forest resources is very imperfect. It is not possible at present to give a reliable estimate of the forest areas needed to meet all future demands because of the number of unknown variables involved; in particular the yield capacity per acre, future consumption of different classes of timber per head, and the future population. It would appear, however, that all available potentially good forest country, including adequate areas for plantations of conifers, will need to be reserved, protected and systematically managed, if Australia is to approach the goal of self sufficiency in timber supplies in the future. One of the most urgent requirements in this connexion is a comprehensive, if provisional, estimate of forest resources.

5. **Plantations.**—The inadequacy of indigenous softwood supplies has been referred to. This fact has long been recognized by the various forest authorities and considerable progress has been made in experimental planting of exotic conifers and also some substantial progress made in the establishment of commercial plantations. It was natural that this aspect of forestry received earliest attention in South Australia as it is the State most poorly endowed with natural forest and it now has the largest plantation area. For some years South Australia has been exploiting considerable quantities of timber from its plantations and these quantities will increase very substantially during the next decade.

According to statements provided by State authorities, the total effective area of plantations in Australia as at the 30th June, 1950 was 294,223 acres. Details by States are given under § 4. 3.

§ 2. Forestry Activities of the Commonwealth.

1. **Prior to 1925.**—When the Commonwealth of Australia was established on the 1st January, 1901, forestry was not included among the matters transferred from the States to the control of the Commonwealth, and Federal jurisdiction was therefore restricted to the then relatively unimportant forests of the Australian Territories. After the 1914–18 War these Territories (including Papua-New Guinea and Norfolk Island) covered a large area, and in the aggregate contained a substantial forest resource. In the early twenties of this century a professional forester was appointed as forestry adviser to the Commonwealth Government, and he submitted preliminary reports on the forest resources of Papua-New Guinea, Norfolk Island and the Australian Capital Territory, with suggestions for future policy.

2. **Commonwealth Forestry Bureau.**—In 1925 the Commonwealth Forestry Bureau was instituted and the Commonwealth Forestry Adviser became the Inspector-General of Forests. At this stage it was considered that the most useful contribution that the Commonwealth could make to Australian forestry was: (*a*) to provide better facilities than then existed for the higher training in forestry for recruits to the professional ranks of the State services and for forestry research workers; and (*b*) to initiate research into problems connected with silviculture, forest management and forest protection, which fundamentally were common to most, if not all of the States.

By deciding to build, equip and staff the Australian Forestry School on its own Territory the Commonwealth Government ended a long standing controversy as to the site of a National School which successive Interstate Forestry Conferences had unanimously resolved was necessary. All States sent students to the Australian Forestry School when its career commenced in Adelaide in 1926, pending completion of the school in Canberra in the following year. At this time also a nucleus of selected and qualified officers was sent abroad to undergo special courses of instruction and to obtain experience for the purpose of staffing the research side of the Bureau, which received statutory powers by an Act passed in 1930. These powers and functions, subject to the regulations and the direction of the Minister, were as follows :—(*a*) advising the Administrations of the Territories on all matters pertaining to the management of forests ; (*b*) the management of forests placed under its control by the Governor-General ; (*c*) the establishment of experimental stations for the study of silviculture, forest management and forest protection ; (*d*) the provision of educational facilities for the training of professional foresters ; (*e*) the establishment and awarding of forestry scholarships ; (*f*) the collection and distribution of forestry information ; (*g*) the publication of reports and bulletins dealing with forestry ; and (*h*) such other functions as are prescribed.

3. **Wartime Control of Timber.**—In previous issues reference is made to the steps leading up to the war-time control, by the Controller of Timber, of all phases in the production, treatment and use of timber.

4. **Forestry and Timber Bureau.**—(i) *General.* At the end of the war the war-time organization of Commonwealth Timber Control lapsed and the direction of timber supplies within the boundaries of each State became the responsibility of the respective State Governments. The Commonwealth Government decided, however, to continue certain advisory functions previously carried out by War-time Timber Control and such functions were incorporated in the Forestry and Timber Bureau Act 1946 under which the title of the Bureau was altered from Forestry Bureau to Forestry and Timber Bureau, its administration was placed under the charge of a Director-General in lieu of an Inspector-General of Forests, and the powers and functions of the Bureau were extended to embrace the following :—(*a*) Collecting statistics and information regarding timber supplies and requirements in Australia, and formulating programmes in respect of the supply, production and distribution of timber in Australia, and the importation into, and exportation from, Australia of timber ; (*b*) advising the Government of the Commonwealth or any instrumentality of that Government, or, when so requested, the Government of any State, or any instrumentality of the Government of any State, or any body or person, on matters relating to the supply, production and distribution of timber in Australia, and the importation into, and exportation from, Australia of timber ; and (*c*) carrying out investigations and research relating to the supply, production, distribution and use of timber. The activities of the Bureau under its statutory functions are summarized below under four main headings.

(ii) *Forestry Education—Australian Forestry School.* The genesis of the Australian Forestry School situated in Canberra in the Australian Capital Territory, which was established by the Commonwealth Government primarily to meet the demand of the States for an institution which would give professional training at least equal to that given by the recognized Forestry Schools abroad, has been referred to in § 2.2 above.

For information on the conditions required for enrolment as a student, the methods of entry and the scholarships available, *see* previous issues of this Year Book.

A Board of Higher Forestry Education advises in regard to the maintenance of the standard of the school diploma course and regarding pre-requisite university courses leading to the diploma course. Students who have passed the approved two-year university preliminary science course and two years of diploma course at the school may be granted the degree of B.Sc.F. by their universities.

For various reasons the number of students attending the School each year almost since its inception has been well below the number which events have since shown were necessary to meet the demand for trained personnel. This position was naturally aggravated during the six years of war, while demands for timber and the need for expansion in all phases of forest developmental work, better protection, transport and more intensive management, have accentuated the shortage of trained staffs. The attendance at the Australian Forestry School has consequently increased substantially to 80 students during 1950. It is not anticipated that this large attendance will be maintained but it has been estimated that in order to meet the future requirements of professional foresters in Australia, the annual attendance at the School for some years to come should be at least 40 to 50 students.

(iii) *Silvicultural Research.* Although a considerable amount of research work had been carried out by the Forest Services of the States, it was recognized that there existed a wide field of research in problems of the living tree and the forest crop which could be most usefully undertaken by the Commonwealth.

The Bureau was accordingly charged with the responsibility of initiating research into problems connected with silviculture, forest management and forest protection. However, the financial situation in the years immediately following the constitution of the Bureau and, later, the impact of the 1939–45 War delayed development in these activities, but some progress was made by the establishment of a small Central Research Station at Canberra. Experimental forest research stations were also established at Mt. Burr in the south-east of South Australia and in Tasmania on a co-operative basis with the Forest Services of those States.

With its present limited staff, the research work of the Bureau has been concentrated largely upon studies of forest and climatic conditions, the genetical relationships and silvicultural requirements of various species, forest nutrition and the improvement of forest yields.

A considerable expansion in the research activities is envisaged over the next few years as suitable trained staff becomes available.

The activities of the Central Research Station are in course of expansion and an Experimental Forest Research Station has been opened at Dwellingup, Western Australia, in co-operation with the Forests Department of that State. It is proposed to extend further the field of this class of work by the establishment of Research Stations in other States and Papua-New Guinea in co-operation with the respective Forest Services.

(iv) *Timber Supply.* The value of reliable statistical data covering availability of timber and timber requirements was so forcibly demonstrated during the 1939–45 war that it was considered essential to maintain at least a skeleton organization against times of future national emergency. Apart from this it became clear that for many years to come shortages of timber on the one hand and heavy post-war reconstruction demands on the other, accentuated by a rapidly increasing population, necessitated assessment of requirements and availability of supplies being kept constantly under review as a basis for short and long term policies of timber supply and distribution.

Advice is currently provided to Government Departments and the trade in matters pertaining to timber supply, including—(*a*) the availability of total quantities and quantities of particular grades and specifications required to meet Australia's housing and other constructional projects; (*b*) the quantity of timber that should be imported to assist in meeting such requirements; (*c*) the extent to which exports of timber and related products might be allowed without detriment to local needs in order to maintain oversea markets; and (*d*) distribution of timber within Australia from those States having surplus production to those with insufficient production.

Considerable progress has been made on investigations into timber requirements of the many industries dependent on timber, but shortage of trained and experienced staff still hampers the development of this important work.

(v) *Research and Investigation regarding Forest Resources.* Production of timber from native grown species has considerably increased since 1939 in order to assist in meeting the heavy demands, firstly for war purposes, and more latterly for building and other constructional projects of the post-war era.

The extent to which the present rate of production can be continued is dependent upon our forest resources. In the national interests it is essential that overcutting of our forests should be avoided and in consequence it is a matter of primary importance that reliable information be available as to the country's forest resources and potentialities.

To this end a national forest stocktaking is being carried out by the Bureau in co-operation with the Forest Services of the States and, to assist in the work of forest assessment, special consideration is being given to the development of the use of aerial surveys.

Consideration is also being given, in co-operation with the State Forest Services, to the establishment of increased areas of plantations of exotic pines with a view to providing additional supplies of softwood timber to meet requirements.

5. **Commercial Forests.**—The forest areas under Commonwealth control include the following :—

(*a*) *Australian Capital Territory.* The forests of the Australian Capital Territory are administered by a Division of the Forestry and Timber Bureau. Further information is contained in Chapter X.—The Territories of Australia.

(*b*) *Northern Territory.* The forests of the Northern Territory are administered by the Administrator of that Territory under ordinance. The native forests of the Territory are very limited, consisting only of a limited area of rain forest in the North, patches of cypress pine, river fringing forests of paper bark, titree and savannah woodland. A Forestry Officer has recently been appointed to the Territory and efforts are to be made to protect and extend the forests.

(*c*) *Norfolk Island.* The forests of Norfolk Island are administered by the Administrator of that Territory. The area reserved for forest covers 1,037 acres, of which the main species is Norfolk Island pine.

(*d*) *Papua-New Guinea.* The forests are under the control of a Forestry Department and administered under ordinance of the Territorial Administration. Forestry in the Territory of Papua-New Guinea commenced with the appointment of two Forestry Officers to the Administration of New Guinea in 1938. Plans for the expansion of forestry activities are being prepared by the Director of the Forestry Department. This planning has been somewhat hampered by the loss of all records through enemy activities in 1942. Further information is contained in Chapter X.—The Territories of Australia.

6. **Forest Products Research.**—Fundamental investigations connected with the properties and uses of timber and forest products generally are carried out by the Forest Products Division of the Commonwealth Scientific and Industrial Research Organization. These investigations cover a very wide field, e.g., pulp, paper, seasoning, structure and chemistry of wood, tans, etc.

Details can be obtained from the annual reports and publications of the Division.

§ 3. Forest Congresses.

Reference to the various forestry conferences held in Australia and elsewhere is given in Official Year Book No. 22, page 742. The first British Empire Forestry Conference was held in London in 1920. Subsequent conferences were held in Ottawa in 1923, Australia, 1928 and South Africa, 1935, but the Fifth Conference which was to have been held in India in 1940 was postponed because of the war. The Fifth Conference was eventually held in London in 1947, at which statements were presented on a more uniform basis than formerly by the various forest authorities of the British Commonwealth of Nations. These statements included references to the part played by forestry in the different parts of the Empire in the war effort. Publications issued in connexion with these conferences are available on application to the various State and Commonwealth forestry authorities.

The first session of the Food and Agriculture Organization of the United Nations held at Quebec in 1945 drew attention to the need for statistics on forest resources and the supply of, and demand for, forest products; sound forest policies; sound forest management; afforestation; forest research; forest education; integration of forest industries and avoidance of waste; and forest products research, particularly in the direction of extending utilization to little known woods.

At the second session held at Copenhagen in 1946, the Director-General of the Forestry and Timber Bureau attended the conference as alternate delegate and adviser in forestry matters for the Commonwealth.

The Third World Forestry Congress was held in Helsinki in 1949 and was attended by the Officer-in-charge of the Division of Forest Resources of the Forestry and Timber Bureau, who also attended the United Nations Scientific Conference on Conservation and Utilization of Resources, held at Lake Success, United States of America, in the same year.

§ 4. State Forestry Departments.

1. **Functions.**—With the exception of Queensland, the powers and functions of State forest authorities are laid down under Forestry Acts and Regulations. In each State there is a department or commission to control forestry work. The functions of these administrations are as follows:—(*a*) The securing of an adequate reservation of forest lands; (*b*) the introduction of proper measures for scientific control and management of forest lands; (*c*) the protection of forests; (*d*) the conversion, marketing and economic utilization of forest produce; and (*e*) the establishment and maintenance of coniferous forests to remedy existing deficiency in softwoods. Annual reports are issued by each State forest authority.

In Queensland, forestry is a sub-department of the Department of Public Lands.

For many years Victoria has possessed a forestry school at which recruits are trained for the forestry service of the State.

2. **Forest Reservations.**—As mentioned in § 1. 4 *ante*, State forest authorities agreed that, in order to secure Australia's future requirements, an area of 24½ million acres should be permanently reserved. In June, 1950 the area of State forests reserved in perpetuity totalled 20,452,579 acres or 83 per cent. of the area recommended as the goal to be attained.

In addition to the work of permanently reserving areas in each State, foresters are endeavouring to survey all timbered lands with a view to the elimination of those unsuitable for forestry. Considerable areas have been revoked in certain States, while dedications of new areas have resulted in gains to the permanent forest estate.

The Forestry Departments also control more than 7,000,000 acres, recorded as temporary timber and fuel reserves, but, while these areas contain some land of high value for forestry purposes, the greater part does not justify permanent reservation.

In the following table details of forest areas as recorded by State Forest Authorities, distinguishing between Dedicated State Forests and Timber and Fuel Reserves, are shown for each State as at 30th June, 1950.

AREA OF FOREST RESERVATIONS, 30th JUNE, 1950.

(Acres.)

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Total.
Dedicated State Forests ..	5,926,782	4,975,056	4,101,347	(a) 254,695	3,410,406	1,784,293	20,452,579
Timber and Fuel Reserves ..	1,301,917	(b)	c 3,127,473	..	2,837,658	(c) 137,028	d 7,404,076
Total ..	7,228,699	4,975,056	7,228,820	254,695	6,248,064	1,921,321	27,856,655

(a) Includes Timber and Fuel Reserves. (b) Not available. (c) Excludes Fuel Reserves. (d) Incomplete.

3. **Reforestation, Afforestation, etc.**—In the table below details are shown of the area of indigenous forest improved or regenerated, the area of forest plantations and the number of persons employed by Forestry Departments for the year 1949–50.

FORESTRY AREAS, AND NUMBERS EMPLOYED BY FORESTRY DEPARTMENTS, 1949–50.

Particulars.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Total.
Total area of indigenous forest improved or regenerated .. acres	1,525,685	1,087,189	521,605	9,928	1,992,000	406,000	5,542,407
Total area of effective plantations—							
Hardwoods .. .. acres	742	2,955	3,323	4,157	17,865	105	29,147
Softwoods .. .. „	39,122	52,096	43,138	113,464	13,108	(a) 4,148	265,076
Number of persons employed in Forestry Departments—							
Office staff .. .. No.	(b) 418	210	172	85	61	72	1,018
Field staff .. .. „	181	361	2,307	670	(c) 131	(d) 79	3,729

(a) Includes 30 acres of nurseries. (b) Includes Wood Technology staff totalling 54. (c) Excludes 410 other employees. (d) Excludes 316 other employees.

4. **Revenue and Expenditure.**—The revenue of State Forestry Departments for 1949–50 was £4,155,672, as compared with £3,604,905 in 1948–49 and £1,466,781 in 1938–39; State details for 1949–50 were as follows:—New South Wales, £1,016,428; Victoria, £1,130,307; Queensland, £1,010,460; South Australia, £580,596; Western Australia, £318,940; and Tasmania, £98,941.

The expenditure of the Departments for 1949–50 was £7,606,512, as compared with £6,328,530 in 1948–49 and £1,840,088 in 1938–39; State details for 1949–50 were as follows:—New South Wales, £1,689,947; Victoria, £2,574,197; Queensland, £1,881,048; South Australia, £660,300; Western Australia, £470,410; and Tasmania, £330,610.

§ 5. Forestry Production.

1. **Timber.**—Particulars of logs treated and the production of rough sawn timber by sawmills and other woodworking establishments are shown in the following table by States for the year 1949–50.

OUTPUT OF NATIVE TIMBER : ALL MILLS, 1949–50.

('000 sup. feet.)

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Total.
LOGS TREATED, INCLUDING THOSE SAWN ON COMMISSION.(*a*)							
Hardwood ..	404,080	466,689	216,632	6,359	313,413	230,063	1,637,236
Softwood	111,423	25,482	174,997	93,754	3,615	6,441	415,712
Total ..	515,503	492,171	391,629	100,113	317,028	236,504	2,052,948
SAWN TIMBER PRODUCED FROM LOGS ABOVE.(*b*)							
Hardwood ..	270,630	292,714	137,589	4,081	136,585	123,543	965,142
Softwood	70,513	16,078	113,538	52,694	1,492	3,603	257,918
Total ..	341,143	308,792	251,127	56,775	138,077	127,146	1,223,060

(*a*) Includes logs used for plywood and veneer production. (*b*) Includes the sawn equivalent of timber peeled or sliced for plywood and veneers.

The following table shows logs used and the sawn timber produced in Australia for the years 1938–39 and 1945–46 to 1949–50.

OUTPUT OF NATIVE TIMBER : ALL MILLS, AUSTRALIA.

Particulars.	Unit.	1938–39.	1945–46.	1946–47.	1947–48.	1948–49.	1949–50.
Logs used—							
Hardwood ..	'000 super. feet (hoppus measure)	1,015,136	1,140,719	1,333,098	1,436,654	1,544,601	1,637,236
Softwood ..	,, ,,	293,680	369,360	409,242	425,812	432,567	415,712
Total ..	,, ,,	1,308,816	1,510,079	1,742,340	1,862,466	1,977,168	2,052,948
Sawn Timber Produced—							
Sawn equivalent of Timber Peeled or Sliced for Plywood and Veneers—							
Hardwood ..	'000 super. feet	(*a*)	2,670	2,924	2,981	2,190	3,602
Softwood ..	,,	21,639	18,968	24,362	27,629	22,644	22,444
Total ..	,,	21,639	21,638	27,286	30,610	24,834	26,046
Used for other purposes—							
Hardwood ..	,,	695,376	643,815	777,113	841,512	905,514	961.540
Softwood ..	,,		224,517	242,683	245,191	253,740	235,474
Total ..	,,	695,376	868,332	1,019,796	1,086,703	1,159,254	1,197,014
Total Sawn Timber—							
Hardwood ..	,,	526,229	646,485	780,037	844,493	907,704	965,142
Softwood ..	,,	190,786	243,485	267,045	272,820	276,384	257,918
Total ..	,,	717,015	889,970	1,047,082	1,117,313	1,184,088	1,223,060

(*a*) Not available for publication ; included with softwoods.

The next table shows the sawn output of native timber in sawmills and other wood-working establishments in each State for the years 1938–39 and 1945–46 to 1949–50.

SAWN OUTPUT (*a*) OF NATIVE TIMBER: ALL MILLS.

('000 sup. feet.)

State.	1938–39.	1945–46.	1946–47.	1947–48.	1948–49.	1949–50.
New South Wales ..	179,350	252,108	300,945	332,591	353,685	341,143
Victoria	120,197	212,611	253,266	260,502	281,852	308,792
Queensland.. ..	193,250	189,912	219,745	235,214	250,355	251,127
South Australia ..	14,537	37,113	46,479	47,700	51,633	56,775
Western Australia ..	125,453	107,647	124,198	131,597	126,859	138,077
Tasmania	84,228	90,579	102,449	109,709	119,704	127,146
Total ..	717,015	889,970	1,047,082	1,117,313	1,184,088	1,223,060

(*a*) Includes the sawn equivalent of timber peeled or sliced for plywood and veneers.

In addition to the sawn timber shown in the preceding table, a large amount of other timber, e.g., sleepers, piles, poles, fencing material, timber used in mining, and fuel, is obtained from forest and other lands. Complete information in regard to the volume of this output is, however, not available. In Western Australia particulars are obtained of the quantities of timber hewn by contractors for the Railway Department, mines, etc., as well as of the quantities produced by other agencies, but the figures have not been included in the preceding tables. The quantities so produced in Western Australia in the five years shown in the preceding table were as follows:—1938–39, 35,862,540 sup. feet.; 1945–46, 10,348,458 sup. feet.; 1946–47, 15,604,008 sup. feet.; 1947–48, 17,210,844 sup. feet.; 1948–49, 16,331,835 sup. feet.; and 1949–50, 16,823,566 sup. feet. The annual reports of the Forest Departments of the States contain particulars of the output of timber from areas under departmental control, but owing to lack of uniformity in classification and measurement, accurate determination of total production cannot be made. Moreover, there is a moderate quantity of hewn timber produced from privately owned land, but information regarding output is not available.

2. **Paper and Wood Pulp.**—(i) *Tasmania.* The manufacture of paper from Australian-grown timber has been established in three States. In Tasmania two large mills are making paper from indigenous hardwoods. The first of these started production of paper from imported pulp at Burnie in August, 1938, and so continued until the pulp mill, using local hardwood, came into operation a few months later. At this mill, pulp is produced by the soda process and the caustic soda necessary for cooking the wood and chlorine for bleaching the pulp are produced by a separate plant located alongside the mill. Late in 1951, three paper machines were in operation, with widths of 200, 120 and 90 inches and maximum speeds of 800, 1,000 and 400 feet per minute respectively. A fourth machine similar to the existing 120 inch machine was to be completed early in 1952. The paper produced covers a wide range of high class printing, writing, drawing, duplicating and blotting papers. At Boyer on the River Derwent, 20 miles from Hobart, production of newsprint commenced in February, 1941. The newsprint is manufactured from locally ground wood pulp to which is added a small proportion of sulphite pulp imported from Canada. Two paper machines are installed. Widths are 230 inches and 160 inches and the present operating speed of both machines is 1,200 feet per minute. When running at full capacity total production is 1,560 tons per week. At Boyer, logs are taken from the forest by means of tractors and transported to the mill by rail. The same practice will be followed at Burnie when a large sawmill at present under construction is completed, but in the meantime deliveries to the mill are in the form of split billets. Power is supplied by the Tasmanian Hydro-electric Commission under contract, but since the introduction of power rationing early in 1951 some curtailment of production

has been enforced, and at Boyer one machine was idle on this account. Hardwood not suitable for pulping and Tasmanian coal are used as fuels. During 1949–50, 59,871 cords of pulpwood and 24,082 cords of firewood were delivered to these mills.

(ii) *Victoria.* In Victoria the production of wood pulp for paper-making commenced in January, 1937, with a pilot plant having the capacity of about 3,000 tons of air-dried pulp per annum. In October, 1939 the main plant at Maryvale, with a capacity of 27,000 tons of pulp per annum, commenced operations. Associated with the pulp mill is a paper-making plant capable of producing about 20,000 tons of kraft paper per annum. The timber used at this mill consists mainly of hardwoods at present unsuitable for other purposes and, in addition, a small quantity of pine, mainly thinnings, mill waste, and special softwood for production of cellulose. During 1948–49 the wood taken from Crown Lands for the production of wood pulp and cellulose amounted to 3,373,704 cubic feet of which 3,347,467 cubic feet were hardwood and 26,237 cubic feet were radiata pine.

(iii) *South Australia.* In South Australia a pulp and paper board mill commenced operations during 1941–42 near Millicent. The mill uses considerable quantities of softwoods from the Mount Burr and Penola pine plantations. During 1949–50, 8,611,357 super. feet of pulp wood were produced, 4,515,717 super. feet for local use and 4,095,640 super. feet for use in an interstate mill.

3. **Other Forest Products.**—(i) *Veneers, Plywood, etc.* Cutting of timber for the manufacture of veneers, plywood, etc., has been carried out in most States for a number of years. Recently, however, this has been considerably extended in all States, and much greater use has been made of local-grown timbers, both hard and softwoods. In recent years special attention has been paid to the selection of logs suitable for peeling.

The following table shows the production of plywood for each of the years 1938–39 and 1945–46 to 1949–50 :—

PLYWOOD PRODUCED.

('000 square feet $\frac{3}{16}$ in. basis).

State.	1938–39.	1945–46.	1946–47.	1947–48.	1948–49.	1949–50.
New South Wales ..	24,194	19,545	22,323	23,726	25,572	28,008
Queensland.. ..	66,100	73,581	87,180	99,823	104,262	111,048
Other States ..	14,511	10,731	13,770	15,528	16,451	17,977
Total ..	104,805	103,857	123,273	139,077	146,285	157,033

During 1949–50, 469.7 million square feet ($\frac{1}{16}$-in. basis) of veneers were produced by the rotary process for the manufacture of plywood, and 46.2 million square feet ($\frac{1}{16}$-in. basis) were sold or added to stock, the bulk of which would eventually be used in the production of plywood. In addition, 23.4 million square feet were produced by slicing. Comparable figures for earlier years are not available.

(ii) *Charcoal.* During the 1939–45 War, charcoal was widely used as a substitute fuel for petrol, and production was considerably increased ; it fell from this level, however, when more petrol supplies became available.

(iii) *Eucalyptus Oil.* Oil may be distilled from the foliage of all varieties of eucalyptus, and several of them furnish a product widely known for its commercial and medicinal uses. Complete information regarding Australian production and consumption of eucalyptus oil is not available, but considerable quantities are manufactured, particularly in Victoria. The value of oversea exports of eucalyptus oil distilled in Australia amounted in 1938–39 to £86,714; in 1945–46 to £201,948; in 1946–47 to £408,451; in 1947–48 to £323,800; in 1948–49 to £138,304; and in 1949–50 to £147,355. The quantities exported in the years 1946–47 to 1949–50 were 1,680,461 lb., 1,481,418 lb., 765,195 lb., and 680,802 lb., respectively. Particulars of quantities for earlier years are not available. The bulk of the product is shipped to the United Kingdom and the United States of America, Victoria being the principal exporting State.

(iv) *Sandalwood and Sandalwood Oil.* Most of the sandalwood is produced in Western Australia where considerable quantities are gathered each year for export to Asiatic countries. Small quantities are also produced in South Australia, Queensland and New South Wales. Details of exports of sandalwood are shown in paragraph 3 (ii), § 6. Oil distilled from Western Australian sandalwood has a medicinal value and is used extensively in the manufacture of perfumes. Quantities of this oil are exported annually to the eastern States of Australia and oversea countries, principally the United Kingdom. Oversea exports of Australian sandalwood oil amounted in 1938–39 to £13,964; in 1945–46 to £19,560; in 1946–47 to £59,145; in 1947–48 to £38,327; in 1948–49 to £16,118; and in 1949–50 to £22,889.

(v) *Grass Tree or Yacca Gum.* South Australia is the chief State producing this gum, which is used in the preparation of varnishes and lacquers. Quantities are also obtained in New South Wales and Western Australia but these are small. The production in South Australia during 1949–50 amounted to 779 tons, whilst the exports from Australia amounted to 715 tons valued at £17,873.

(vi) *Tanning Barks.* The forests of Australia are capable of yielding a wealth of tanning materials; many species of eucalyptus and other genera contain varying proportions of tannin, chiefly in the bark, but also in the wood and twigs. Although many of these species contain higher percentages of tannin than are found in the barks of oak, chestnut and hemlock, formerly the chief source of tannin material in the northern hemisphere, scattered distribution has resulted in the richest tan-bearing species only being used in Australia. These are :—Golden wattle (*Acacia pycnantha*), black or green wattle (*Acacia decurrens* or *mollissima*), and mallet (*Eucalyptus astringens*).

Up to 1913 the production of wattle bark was more than sufficient for local requirements, and an export trade was built up. The supply diminished during the six years ended 1926–27, and Australia imported on the average about 2,900 tons each year from Natal, where the plantations were originally started from Australian seed. From 1927–28 to 1938–39 exports exceeded imports in every year except 1936–37, but since 1939–40 there has been a considerable excess of imports. This matter is referred to in tables appearing in § 6 following. The other valuable tanning bark, mallet (*Eucalyptus astringens*) of Western Australia, is not extensively used in Australian tanneries, but it is exported to Europe and other countries, where it is used for producing a tannin extract. A brief account of work done by the Council for Scientific and Industrial Research in connexion with tanning materials is given in Official Year Book No. 22, p. 743. The production of extract from the bark of karri (*Eucalyptus diversicolor*), of which very large quantities are available at karri sawmills, has passed the experimental stage, and private enterprise has started production on a commercial scale. The experimental work in kino impregnated marri (*Eucalyptus calophylla*) bark is not yet complete. The production of tanning bark in Australia approximated 25,000 tons per annum in the years prior to 1939. Since then production has declined and in 1945–46 reached the level of about 8,800 tons recovering to about 11,000 tons in the years subsequent to 1946–47. However, this diminution is offset by the increased use of vegetable tanning extract which rose from 3,686 tons in 1938–39 to 10,714 tons in 1949–50.

4. **Value of Production.**—(i) *Gross, Local and Net Values,* 1949–50. The values of forestry production on a gross, local and net basis are shown in the following table for the year 1949–50.

GROSS, LOCAL AND NET VALUE OF FORESTRY PRODUCTION, 1949–50.
(£'000.)

State.	Gross Production Valued at Principal Markets.	Marketing Costs.	Gross Production Valued at Place of Production.	Net Value of Production. (a)
New South Wales	7,447	262	7,185	7,185
Victoria	6,159	589	5,570	5,570
Queensland	4,700	680	4,020	4,020
South Australia	2,437	137	2,300	2,300
Western Australia	2,251	230	2,021	2,021
Tasmania	2,339	240	2,099	2,099
Total	25,333	2,138	23,195	23,195

(a) No deduction has been made for depreciation and maintenance nor for the value of other materials used in the process of production.

(ii) *Net Values*, 1934–35 *to* 1949–50. In the following table the net value of forestry production and the net value per head of population are shown by States for the years 1945–46 to 1949–50 in comparison with the average for the five years ended 1938–39.

NET VALUE OF FORESTRY PRODUCTION.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Total.
NET VALUE.(a) (£'000.)							
Average, 1934–35 to 1938–39	2,094	837	2,226	547	1,176	394	7,274
1945–46	3,745	2,411	2,502	1,170	1,459	973	12,261
1946–47	4,508	2,946	3,037	1,383	1,496	1,327	14,697
1947–48	5,741	3,493	3,394	1,700	1,605	1,833	17,766
1948–49	6,561	3,940	3,804	2,104	1,791	2,105	20,305
1949–50	7,185	5,570	4,020	2,300	2,021	2,099	23,195
NET VALUE PER HEAD OF POPULATION. (£ *s.* *d.*)							
Average, 1934–35 to 1938–39	0 15 7	0 9 1	2 5 2	0 18 7	2 11 8	1 13 9	1 1 4
1945–46	1 5 6	1 3 11	2 6 2	1 17 1	2 19 6	4 19 10	1 13 9
1946–47	1 10 5	1 8 11	2 15 4	2 3 2	3 0 2	5 4 3	1 19 1
1947–48	1 18 2	1 13 9	3 1 0	2 12 1	3 3 1	7 0 1	2 6 6
1948–49	2 2 10	1 17 4	3 7 1	3 3 3	3 8 7	7 16 11	2 12 1
1949–50	2 5 4	2 11 4	3 9 2	3 7 0	3 14 1	7 11 4	2 17 8

(a) No deduction has been made for depreciation and maintenance nor, for the year 1949–50, for the value of other materials used in the process of production; in earlier years deductions were made on this account for one or two States only.

5. **Employment.**—(i) *Forestry Operations.* The estimated number of persons employed in forestry operations as at June, 1950 is shown in the following table. These estimates, which have been based upon pay-roll tax and other data, include working proprietors, but exclude those employed in the sawmilling industry whose particulars are shown in the next table.

ESTIMATED NUMBERS EMPLOYED IN FORESTRY, JUNE, 1950.
(Excluding Sawmilling Industry).

Sex.	N.S.W. (a)	Victoria.	Q'land.	S. Aust. (b)	W. Aust.	Tasmania.	Total.
Males	7,522	7,044	5,627	1,637	1,854	1,708	25,392
Females	39	20	4	10	10	4	87
Total	7,561	7,064	5,631	1,647	1,864	1,712	25,479

(a) Includes Australian Capital Territory. (b) Includes Northern Territory.

(ii) *Milling Operations.* Details of the number of persons employed, including working proprietors, in the milling operations of sawmills during the year 1949–50 are shown in the next table. Further details regarding the operations of these mills are shown in Chapter XXIV.—Manufacturing Industry.

SAWMILLS: PERSONS EMPLOYED, 1949–50.

Sex.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Total. (a)
Males	8,923	6,094	6,226	1,747	3,016	2,236	28,242
Females	302	111	202	107	21	23	766
Total ..	9,225	6,205	6,428	1,854	3,037	2,259	29,008

(a) Excludes Northern Territory and Australian Capital Territory.

§ 6. Oversea Trade.

1. **Imports.**—(i) *Dressed Timber.* The quantities and values of timber imported into Australia during the years 1938–39 and 1947–48 to 1949–50 inclusive are shown in the following table according to countries of origin :—

DRESSED TIMBER: IMPORTS INTO AUSTRALIA.

Country of Origin.	Quantity ('000 sup. ft.).				Value (£).			
	1938–39.	1947–48.	1948–49.	1949–50.	1938–39.	1947–48.	1948–49.	1949–50.
United Kingdom ..	1	2	21	6	44	425	1,194	383
Canada	8,927	3,297	1,707	398	90,833	137,916	68,518	12,316
Other British Countries ..	3	155	183	773	21	6,113	8,881	30,111
Norway	4,209	2,094	6.604	9.242	43,297	90,924	273,734	374,718
Sweden	1,978	5,075	32,033	33,189	24,290	220,817	1,302,495	1,297,208
U.S. of America.. ..	2,242	2,245	550	..	22,029	122,060	31,081	1
Other Foreign Countries ..	418	103	1,021	546	6.163	4,057	42,019	21,946
Total	17,778	12,971	42,119	44,154	186,677	582,312	1,727,922	1,736,683

The figures in the table above exclude items such as architraves, veneers, plywood, staves, etc., quantities for which are either not shown, or are expressed in dissimilar units in the Customs entries. The total value of the items so excluded amounted to £587,084 in 1949–50.

The bulk of the imports of dressed timber now comes from Norway and Sweden and consists of softwoods cut for making boxes, and tongued and grooved timber, weatherboards, etc.

(ii) *Undressed Timber.* Australian imports of undressed timber for the years 1938–39 and 1947–48 to 1949–50 are shown hereunder :—

UNDRESSED TIMBER (a): IMPORTS INTO AUSTRALIA.

Country of Origin.	Quantity ('000 sup. ft.).				Value (£).			
	1938–39.	1947–48.	1948–49.	1949–50.	1938–39.	1947–48.	1948–49.	1949–50.
United Kingdom ..	115	104	181	181	9,984	24,014	33,586	27,137
Canada	296,948	48,148	78,761	80,201	1,115,562	1,414,520	2,012,413	1,997,618
Malaya (British) ..	165	311	840	2,167	1,264	6.311	29,820	92,250
New Zealand	11,193	13,956	26,588	15,085	157,967	342,614	704.552	447,086
Other British Countries ..	10,840	10,421	25,350	34,454	68,387	206,274	431,599	572,444
Indonesia, Republic of ..	20	257	..	17	118	1,584	..	582
New Caledonia	1,671	6	867	450	5,796	55	19,399	11,613
Philippines Republic ..	6,879	2	..	..	66,371	34	..	..
Sweden	4,654	3,168	23,046	23,115	36,946	98,530	799,750	696,590
United States of America..	12,245	57,735	36,545	46,368	191,221	1,453.164	955,227	1,311,309
Other Foreign Countries ..	3,368	297	11,723	11,819	34,708	29,106	421,248	437,132
Total	348,098	134,405	203,901	213,857	1,688,324	3,576,206	5.407,594	5,593,761

(a) Includes logs not sawn and excludes timber not measured in super. feet.

By far the larger proportion of the undressed timber imports consists of softwood such as oregon, redwood, hemlock, western red cedar and yellow pine from Canada and the United States of America; kauri, red and white pine from New Zealand and other softwoods from Sweden. Amongst the hardwoods imported are mahogany from the United States of America, teak from Burma and other hardwoods from the Pacific Islands.

2. **Exports.**—(i) *Undressed Timber (excluding Railway Sleepers).* The quantity and value of undressed timber, exclusive of railway sleepers, exported during the years 1938–39 and 1947–48 to 1949–50 are shown below, together with the countries of destination.

UNDRESSED TIMBER (EXCLUDING RAILWAY SLEEPERS) (*a*): EXPORTS FROM AUSTRALIA.

Country to which Exported.	Quantity ('000 sup. ft.).				Value (£).			
	1938–39.	1947–48.	1948–49.	1949–50.	1938–39.	1947–48.	1948–49.	1949–50.
United Kingdom ..	11,750	8,247	7,025	15,319	137,927	266,490	268,213	594,193
Canada	223	382	210	326	4,723	14,531	8,548	14,697
Hong Kong	98	163	..	34	1,058	5,433	..	3,227
Mauritius	354	275	310	397	4,520	6,922	8,349	12,476
New Zealand	17,145	8,561	12,227	11,634	245,194	254,386	425,253	462,793
Union of South Africa ..	7,164	3,807	2,843	2,655	80,668	117,630	87,945	91,329
Other British Countries ..	2,280	1,349	1,666	2,613	36,333	67,899	62,851	102,016
Belgium	1,286	217	121	270	19,347	9,160	6,280	14,047
United States of America ..	867	409	291	144	26,506	15,671	12,154	6,697
Other Foreign Countries ..	2,630	403	101	375	32,470	8,603	4,388	15,877
Australian Produce ..	43,797	23,813	24,794	33,767	588,746	766,725	883,981	1,317,352
Other Produce	541	564	191	470	6,079	24,894	11,208	23;148
Total	44,338	24,377	24,985	34,237	594,825	791,619	895,189	1,340,500

(*a*) Excludes timber not measured in super. feet.

The bulk of the exports of undressed timber were consigned to New Zealand, the United Kingdom, South Africa and the United States of America, and consisted largely of the Western Australian hardwoods, jarrah and karri, which have earned an excellent reputation for such purposes as harbour works and wood paving, etc.

(ii) *Railway Sleepers.* Particulars of the quantities and values of railway sleepers exported, which are excluded from the previous table relating to undressed timber, are shown below.

RAILWAY SLEEPERS: EXPORTS FROM AUSTRALIA.

Country to which Exported.	Quantity ('000 sup. ft.).				Value (£).			
	1938–39.	1947–48.	1948–49.	1949–50.	1938–39.	1947–48.	1948–49.	1949–50.
United Kingdom ..	1,438	739	..	..	14,467	29,056	..	..
Ceylon	5,334	2,705	417	423	53,339	109,366	17,354	17,622
Mauritius	563	..	428	350	6,216	..	17,836	15,011
New Zealand	16,896	12,645	14,679	11,358	165,303	263,691	344,954	271,855
Pacific Islands (British) ..	201	341	88	347	2,341	7,808	4,349	9,319
Union of South Africa ..	4,941	873	2,982	1,923	49,412	37,352	133,881	82,858
Other British Countries ..	..	2,160	20	92	..	98,112	652	3,628
Egypt	4,198	..	..	..	41,986	..	..	..
Iran (Persia)	271	..	1,238	1,005	2,707	..	46,863	42,087
Iraq	165	..	2,687	..	1,696	..	109,028	..
Other Foreign Countries ..	29	42	..	42	291	787	..	1,088
Total	34,036	19,505	22,539	15,540	337,758	547,072	674,917	443,468
Number of Sleepers '000	1,268	773	955	647	..	..	..	..

3. **Classification of Imports and Exports.**—(i) *General.* The quantities and values of timber, according to items, imported and exported during the year 1949–50 are shown in the following table :—

TIMBER : IMPORTS AND EXPORTS, AUSTRALIA, 1949–50.

Description.	Quantity.				Value (£).		
	Unit of Quantity.	Imports.	Exports.	Excess of Imports over Exports.	Imports.	Exports.	Excess of Imports over Exports.
Logs, nor sawn ..	'000 sup. ft.	31,501	5,942	25,559	493,323	236,515	256,808
Timber undressed—							
Beams, Baulks, etc. ..	„	133,186	27,103	106,083	3,354,103	1,059,785	2,294,318
Boards, Planks, etc. ..	„	45,399	1,192	44,207	1,562,025	44,200	1,517,825
Boxmaking timber ..	„	3,286	(a)	..	127,198	(a)	−422,212
Railway sleepers ..	„	(a)	15,540	..	(a)	443,468	
Other undressed ..	..	..	..	..	63,972	169,914	
Timber, dressed—							
Bent or cut into shape	..	..	..	..	89,521	21,334	1,804,870
Boxmaking timber ..	'000 sup. ft.	11,356	..	..	449,341		
Tongued, and grooved, weatherboards ..	„	22,137	..	..	872,758		
Other, dressed or moulded	„	10,660	..	..	414,584		
Plywood	'000 sq. ft.	24,598	586	24,012	391,749	19,799	371,950
Veneers	„	6,559	4,978	1,581	105,814	51,037	54,777
Total	..	..	..	..	7,924,388	2,046,052	5,878,336

(*a*) Not separately recorded.

NOTE.—Minus sign (−) denotes an excess of exports.

(ii) *Sandalwood.* A considerable quantity of sandalwood is exported, principally from Western Australia, to Singapore and Hong Kong, where it is highly prized and largely used for artistic and ceremonial purposes. Particulars for the five years 1947–48 to 1949–50 are compared with 1938–39 in the following table :—

SANDALWOOD : EXPORTS FROM AUSTRALIA.

Country to which Exported.	Quantity (Tons).				Value (£).			
	1938–39.	1947–48.	1948–49.	1949–50.	1938–39.	1947–48.	1948–49.	1949–50.
Hong Kong	806	49	25	40	18,709	11,428	5,985	9,820
Malaya (British) ..	97	15	49	85	3,149	3,790	11,400	19,863
Singapore	..	72	67	54	..	17,493	14,650	12,058
Other British Countries..	42	11	13	15	1,385	2,860	3,116	3,570
China..	686	..	..	..	18,511	..	..	..
Other Foreign Countries	17	..	2	1	574	..	484	235
Total	1,648	147	156	195	42,328	35,571	35,635	45,546

(iii) *Tanning.* For a number of years prior to 1927–28 Australia had to import large quantities of tanning bark, but thereafter imports dropped to negligible quantities and exports rose annually to 89,061 cwt. in 1931–32. Since 1931–32 there has been a diminution of exports and by 1941–42 these had reached the low level of 421 cwt. The quantity imported did not rise appreciably until 1939–40 when imports were more than three times that of the previous year. Since that year there has been a considerable excess of imports, the Union of South Africa being almost the sole source of supply. During recent years exports have been negligible.

A comparison of the imports and exports of tanning bark during 1938–39 and the five years ended 1949–50 is shown in the following table :—

TANNING BARK : IMPORTS AND EXPORTS, AUSTRALIA.

Particulars.	1938–39.	1945–46.	1946–47.	1947–48.	1948–49.	1949–50.
QUANTITIES—	Cwt.	Cwt.	Cwt.	Cwt.	Cwt.	Cwt.
Imports	6,199	86,367	65,056	69,012	27,690	21,464
Exports	18,220	1	9,673	..	22	..
Excess of imports over exports ..	— 12,021	86,366	55,383	69,012	27,668	21,464
VALUES—	£	£	£	£	£	£
Imports	2,318	56,986	49,456	64,696	36,809	25,316
Exports	8,630	6	13,032	..	119	..
Excess of imports over exports ..	— 6,312	56,980	36,424	64,696	36,690	25,316

NOTE.—The minus sign (—) denotes an excess of exports.

The imports consist almost exclusively of wattle bark from the plantations in South Africa. One species of Australian wattle, *Acacia mollissima*, is chiefly relied upon for the production of wattle bark in the South African plantations. Seed has been tried from New South Wales, Tasmania and Victoria, but it is stated that most of the seed is obtained from the best wattle bark areas in eastern Tasmania and western Victoria.

Two reasons are given to account for the success of the industry in the Union of South Africa :—(*a*) It is found that the treeless, grassy highlands of Natal are specially suitable for wattle culture, and the trees can therefore be grown in rows and economically attended to, while the necessary bark sheds and other appurtenances can be placed in the most advantageous positions ; and (*b*) the availability of native labour.

(iv) *Other Tanning Substances.* Considerable quantities of tanning substances other than bark are imported annually into Australia. The total value in Australian currency of the importations in 1949–50 was £334,767, and was composed as follows :— Tanners' Bates, £5,439 ; wattle bark extract, £283,571 ; other extract, £4,915 ; and volonia, myrobalans, cutch, etc., £40,842.

Exports of tanning extracts from Australia amounted to £240,818 in 1949–50.

CHAPTER XXIII.

FISHERIES.

§ 1. General.

1. **Fish Stocks.**—Australia possesses a varied native fauna of freshwater and marine fish, including tropical and temperate species. In addition, certain exotic species have become acclimatized in the freshwater streams. The commercial fisheries exploit on-shore, demersal (bottom) and pelagic (surface) stocks. The on-shore stocks are at present of greatest importance.

The Australian marine fauna includes also a number of mollusca (oysters, scallops) and crustacea (crabs, prawns, crayfish) groups which are commercially exploited.

In winter whales of various species, of which the humpback is the most common, appear off the western and eastern coasts.

2. **Fishing Areas.**—The principal fishing areas at present are the coastal lakes, streams, estuaries and beaches, from Cairns in Queensland to Ceduna in South Australia, and from Esperance to Geraldton in Western Australia. There are interruptions of variable size ; for the most part, these fishing grounds are associated with the coastal streams. The demersal grounds fall into two classes—(*a*) the reefs from which cod and other tropical species are taken in tropical waters, and snapper in temperate waters ; and (*b*) the grounds from which flathead, morwong, etc., are taken. The reefs extend intermittently from northern Queensland around the southern part of the continent to Shark's Bay in Western Australia. The flathead grounds lie on the continental shelf off south-east Australia, chiefly from Crowdy Head to south of Cape Everard and further off the east Tasmanian coast from Babel Island southwards to Storm Bay. Other demersal grounds exist in the Great Australian Bight but have only begun to be exploited. The demersal shark grounds lie principally in Bass Strait and on the continental shelf off eastern South Australia. Other grounds have been located off southern Western Australia.

The grounds of existing pelagic fisheries include that for the Spanish mackerel off the north-eastern coast from about Coff's Harbour to Cairns and that for barracouta in Bass Strait and off eastern Tasmania. Jack mackerel is found in the waters of eastern Tasmania, the south-east coast of New South Wales, and Western Australia. Tuna is now being taken in commercial quantities off the south coast of New South Wales, and off the western and South Australian coasts.

Pearl shell and trochus are fished in the northern and western coastal waters from Cape York to Shark Bay. Edible oysters are found in the temperate waters of Queensland, New South Wales and Victoria. Some cropping of natural resources takes place in Queensland, but the principal cultivation grounds are found in New South Wales. The scallop is taken commercially only in Tasmanian waters.

Crabs of various species are found in practically all coastal waters. Prawns are taken in the temperate waters of Queensland and New South Wales. Crayfish are taken on reefs of the continental shelf in the waters of all southern States, the fishery extending (with a major interruption in the Bight) from Port Macquarie in New South Wales to Geraldton in Western Australia. Considerable development has taken place in the crayfish fisheries, particularly in South Australian and Western Australian waters, owing to the opening up of markets in the United States of America for frozen crayfish tails.

The whale appearances occur off the south of the continent, extending as far north as southern Queensland in the east and to beyond Shark's Bay in the west. Two whaling stations are operating on the Western Australian coast, one at Pt. Cloates and the other at Babbage Island, near Carnarvon.

3. **Fishing Boats and Equipment.**—The fishing equipment includes almost every possible type of gear, and appropriate boats are employed. The on-shore equipment includes mesh-nets, trawl-nets, and traps of various types. The demersal reef-fishery is worked with traps, hand lines and other long lines. The demersal flathead-fishery

is worked by both otter trawl (with V.–D. gear) and Danish seine; in addition some hand-lining is carried out. The demersal shark fishery is worked by long lines. The pelagic mackerel-fishery employs trolling gear with lures of various types, while the pelagic barracouta fishery employs principally barbless jigs. Tuna is taken by trolling and, more recently, by pole fishing with live bait, and jack mackerel and pilchards are taken with purse-seine and lampara nets.

The boats for the on-shore fisheries are almost invariably small vessels fitted with low-power petrol engines. The vessels working the reefs are larger (up to 50 feet) and have more power. The otter trawl vessels are steam trawlers, and the Danish seine vessels are 40 to 70 feet in length with diesel engines. The shark boats have diesel power and range from 35 to 50 feet in length. For the operation of the purse-seine nets larger vessels are used.

4. **Administration.**—The fisheries are administered by State Departments implementing State laws. This administration includes licensing of men and boats, and restriction of fishing by prohibitions against fishing at certain times and places and by certain methods. In some States the quantity, type and construction of gear is subject to limitations and legal minimum sizes are prescribed.

In October, 1946 the Commonwealth Government appointed a Director of Fisheries and established the Commonwealth Fisheries Office as a division of the Department of Commerce and Agriculture to co-ordinate fisheries administration and develop the fisheries of Australia.

The Commonwealth Scientific and Industrial Research Organization, through its Fisheries Division, is responsible for fishery research (*see* § 4, par. 2 hereafter).

§ 2. Development and Present Condition of the Fishery.

1. **Fisheries Proper.**—(i) *General.* The earliest Australian fishery was on-shore. To this was soon added the demersal reef fishery using lines. At each centre of population this sequence has almost invariably been followed, and expansion of the industry up to about the year 1900 consisted chiefly of the extension of these operations into hitherto unworked areas. The taking of barracouta in Tasmanian waters was begun at least by 1880, if not earlier, but the main development of this fishery occurred between 1915 and 1925.

The first major development of the fishery came with the institution of trawling operations off the New South Wales coast in 1918 by the New South Wales Government, as a consequence of the results obtained from the exploratory work of the Federal Investigation ship *Endeavour*. The State enterprise failed, but the fishery was found very profitable by private enterprise, which had as many as sixteen steam trawlers operating at one time. In 1936 the use of Danish seine vessels began and the fleet of these vessels rapidly expanded, being given an exceptional opportunity by the requisitioning of the steam trawlers by the Navy. Subsequently, practically all the Danish seine vessels were also requisitioned. After the war, vessels requisitioned by the Services were returned to the industry and in 1946 a peak was reached and thirteen steam trawlers and 120 Danish seine vessels were licensed. The total catch of trawled fish in 1946–47 was 16,000,000 lb. However, by the end of 1947 many of these vessels, which had made satisfactory catches in 1946, found that the fish stocks, particularly of flathead, appeared to be seriously depleted. Of the species taken by the trawl fishery, tiger flathead, morwong and nannygai are the most important, and of these flathead may be regarded as the prime fish and commands a higher price. Since 1947 the composition of the catch has changed, because of depletion of the flathead stocks, and the lower priced fish have become a larger proportion of the catch. In 1951 twelve steam trawlers (all in New South Wales) and 105 Danish seine vessels (76 in New South Wales and 29 in Victoria) were registered.

In Queensland waters the Spanish mackerel is taken by line fishermen, operating in off-shore waters out to the Barrier Reef between Gladstone and Cairns, with Townsville as the centre. This fishery started in 1930 and by 1942 production had risen to about 1,000,000 lb. The catch decreased considerably during the war and post-war period, but in 1949–50 it had increased again to the 1942 level of approximately 1,000,000 lb.

In 1930 the fishery for snapper shark was started in south-eastern waters, particularly off the Victorian and Tasmanian coasts. This fishery extended rapidly its area of operations, particularly in the Bass Strait area and the south-east coast of South Australia, and the catch increased from 23,131 lb. in 1930 to a steady 3,000,000 lb. catch in each year since 1942. Great impetus was given to the fishery during war years by the demand for livers for fish oil production for medicinal purposes. This demand has eased with the return of cod-liver oil, and the production overseas of synthetic vitamin "A". However, shark is still fished for the flesh, which is sold as "flake", mainly in the Melbourne Fish Market.

Pilchards occur in the southern waters of Australia from Port Stephens to the south-west of Western Australia. Catches have been made by commercial crews using a lampara net and a small purse-seine at Jervis Bay on the New South Wales coast, in Port Phillip Bay in Victoria, at Coffin Bay in South Australia and at Albany in Western Australia. Anchovies in Port Phillip Bay and sprats in Tasmanian waters are caught in payable quantities though there is usually some difficulty in finding a market for them. Jack mackerel have been caught in commercial quantities off the east coast of Tasmania and off Eden in New South Wales.

The tuna fishery was established on the New South Wales coast during the second half of 1949, when fishermen, using improvised trolling gear, caught 1,000 tons of southern blue-fin tuna. The catch was canned at Narooma and Eden, and samples of both canned and frozen fresh tuna were sent to California, where it met with approval. Owing to adverse marine conditions, 1950 was a very poor tuna year. The American-owned tuna clipper *Senibua*, whose operations were subsidized by the Commonwealth, proved that Australian tuna could be caught by pole fishing with live bait. As tuna come close to the coast, ice can be used instead of refrigeration to preserve the catch to the landing port. This means that smaller and less expensive vessels can be used.

(ii) *Production.* Production of fresh fish, which for the year 1947–48 was about 76,000,000 lb., fell slightly to 75,000,000 in 1948–49 and further to 70,000,000 in 1949–50.

Production for the years 1938–39 and 1945–46 to 1949–50 is shown by States, in the following table:—

RECORDED PRODUCTION OF FRESH FISH.

('000 lb.)

State.	1938–39.	1945–46.	1946–47.	1947–48.	1948–49.	1949–50.
New South Wales	(a)29,382	30,668	34,157	32,813	29,506	27,985
Victoria	12,840	11,923	11,538	9,745	9,907	9,722
Queensland.. ..	9,182	10,170	10,779	10,508	10,129	10,124
South Australia(a) ..	8,960	5,908	5,927	4,750	5,264	5,799
Western Australia(a)..	5,841	4,368	5,035	6,953	9,254	8,910
Tasmania	(a) 2,393	8,676	7,479	11,288	11,302	7,376
Northern Territory ..	28	(b)	(b)	112	52	52
Total ..	68,626	71,713	74,915	76,169	75,414	69,958

(a) Year ended December previous. (b) Not available.

2. **Oysters and Shell Fisheries.**—Initially the Australian oyster fisheries depended solely upon the harvesting of naturally grown stock in littoral and submarine areas. However, the stocks soon deteriorated and attention was turned to methods of cultivation. These have not been successful in Queensland, but in New South Wales there has been constant improvement in methods and the present technique in certain areas is highly efficient. The production for Australia in 1949–50 was 83,097 cwt. Scallops are taken by dredge in the D'Entrecasteaux Channel in Tasmania.

Cray fisheries have developed greatly in recent years and the development has been such as to permit an export trade of crayfish tails to America to meet the off-season demand for frozen tails. The catch of 412,172 dozen for 1949–50 was a record. Details of production in each State for the years 1938–39 and 1945–46 to 1949–50 are shown in the following table :—

RECORDED PRODUCTION OF CRAYFISH.
(doz.)

State.	1938–39.	1945–46.	1946–47.	1947–48.	1948–49.	1949–50.
New South Wales ..	(*a*)13,467	7,427	7,681	13,021	22,021	19,063
Victoria	6,436	2,313	3,956	2,614	14,771	26,297
Queensland.. ..	..	..	..	..	..	..
South Australia(*a*) ..	22,000	18,365	23,375	30,174	27,896	53,571
Western Australia(*a*)..	56,202	27,118	53,237	97,328	116,867	213,365
Tasmania	(*a*)65,652	69,077	92,186	115,791	135,042	99,876
Total ..	163,757	124,300	180,435	258,928	316,597	412,172

(*a*) Year ended December previous.

3. **Pearl-shell, Trochus and Bêche-de-mer.**—The industry, which ceased operations on Japan's entry into the war in December, 1941, did not resume on a commercial basis at Queensland centres until late in 1945, and at Western Australian centres until 1946, while operations off the Northern Territory coast were not resumed until 1948.

Before the war a large proportion of the key men were Japanese ; the others included Malays, Chinese, Koepangers, Filipinos, Papuans and Torres Straits Islanders. On the resumption of operations without the Japanese, the labour available was, with few exceptions, inefficient. Queensland with a more ready source of labour from the Torres Strait Islands and the mainland was able to expand its fishing more rapidly, and in the 1949 season, achieved its second highest pearl shell production on record. The expansion of the industry at Darwin has been retarded by the fact that the key men lack the local knowledge acquired by the Japanese. Western Australian centres, with so few proficient key men and lacking a source of labour suitable for training are also experiencing difficulties.

Tables showing the principal statistics relating to pearl-shell, trochus and bêche-de-mer are shown in § 5, para. 1, sections (ii) and (iii) hereafter.

Reference to inquiries into the pearl-shell fishing industry by a Royal Commission in 1912 and by the Tariff Board in 1935, appears on page 1031 of Official Year Book No. 37.

§ 3. Marketing and Distribution.

1. **Marketing.**—The greater portion of Australian fish is sold in metropolitan markets. In Queensland, fish marketing is under the control of a Fish Board, which has representatives of producers, wholesalers, consumers, and a Government nominee as chairman. A central market is located in Brisbane and there are branch markets or depots at 14 centres along the coast. The organization ensures that all fish is marketed through the correct channels, and the board has encouraged to a very marked extent the steadily increasing annual fish production of the State. The fish marketing methods in this

State have proved most successful. In New South Wales the central market in Sydney is conducted by the Chief Secretary's Department, and the port depots in various centres along the coast by fishermen's co-operatives. These co-operatives distribute some of their fish to local centres and to inland country districts, and send the balance to the central market in Sydney. In Victoria, South Australia, and Western Australia fish is sold in central markets by agents. The greater part of the catch of fish in Tasmania is either processed in canneries in that State or exported to the mainland. There is some interstate movement of fish from the northern rivers of New South Wales to Queensland, from Tasmania to New South Wales and Victoria, and from South Australia to Victoria.

2. **Consumption of Fish.**—Prior to the 1939–45 War, Australians consumed annually the fresh and canned equivalent of about 131,000,000 lb. of round fish, or 19.0 lb. per person. About 70,000,000 lb. was produced locally and the remainder was imported; that is, the average Australian ate about 10.2 lb. of Australian fish a year and the equivalent of 8.8 lb. of imported fish. During the 1939–45 War, however, the quantity of fish entering civilian consumption in Australia was reduced to approximately 6 lb. (weight in the round) per person annually owing to the decline in local production, the steep drop in the imports of canned fish and the allocation of supplies for the Services and other priority needs. Although fish was in increased demand during the period of meat rationing, it is not, as in many countries, a staple item in the diet of Australians, and is still regarded rather as a luxury. The consumption per head of population during 1949–50 amounted to 6.2 lb. edible weight of fresh fish and 2.8 lb. of canned fish or a total of 16.4 lb. expressed in terms of fish in the round. This represents a total quantity consumed of 132,000,000 lb. in the round, of which nearly 82,000,000 lb. was produced locally.

3. **Processing, including Canning.**—The equipment for handling fish has in the past been rather inadequate, but in most States since the war cold storage facilities have been improved and increased. In Queensland and New South Wales particularly, the depots which have been established at fishing ports have been equipped with cold storage space. In several States there has been a development of establishments equipped for snap freezing of fish, in particular the freezing of crayfish tails for export. A number of vessels has been equipped with freezing plants to process crayfish at sea.

In all States there has been a development of facilities for light processing of fish.

Reference to the production of processed fish and number of factories operating will be found in § 5, par. 3 hereafter. Considerable expansion has taken place in the industry, particularly since 1945–46. In 1938–39, three factories processed 603,302 lb. of fish valued at £13,700, whereas in 1949–50 fifteen factories processed 7,442,521 lb., valued at £676,812.

4. **By-Products.**—Processing of offal for fish-meals, etc., has been established in certain States. The processing of livers for vitamin-rich oils has been undertaken in several States and oil-production has been favourably developed.

§ 4. Inquiries and Research.

1. **General.**—The Australian fishing industry has been the subject of a number of official inquiries seeking an explanation of the very slow rate of development and the unfortunate conditions prevailing within the industry as well as the paucity of supplies available to the public. Details of the inquiries undertaken, the recommendations arising from them and subsequent developments will be found in Official Year Book No. 38, page 1082.

2. **Commonwealth Scientific and Industrial Research Organization, Division of Fisheries.**—Details of the establishment, organization and functions of the Division of Fisheries of the Commonwealth Scientific and Industrial Research Organization will be found in Official Year Book No. 38, page 1083.

Since its inception, the work of the Division has extended, and there are field stations at Melbourne, Perth, Hobart, Dunwich (Queensland) and Thursday Island. The Division has three research vessels, F.R.V. *Warreen*, working in Western Australian waters, F.R.V. *Derwent Hunter*, working in South Australian waters and a ketch recently commissioned as a pearling lugger in the Thursday Island area.

As a result of the exploratory investigations and the research of the Division, together with the collaboration of commercial fishermen, it has been shown that important species of pelagic fish can be taken in commercial quantities in Australia. It has been shown too that crayfish, mullet, shark, white bait and New South Wales trawl fish stocks need the protection of regulations to preserve them. In all but the last mentioned, restrictions have been imposed by the administrative departments to preserve the stocks.

Research on oysters has been aimed at cultivation methods, including the fertilization of mud to increase the output. It has been determined that the Pacific oyster from Japan can be established and grown satisfactorily in Tasmanian waters. Experiments are being carried out with Australian species of pearl-shell in the Thursday Island area to determine whether the cultivation methods used in Japan can be established.

3. **Commonwealth Fisheries Authority.**—The Commonwealth Fisheries Office, a section of the Department of Commerce and Agriculture, was established as a result of a recommendation in 1941 by the Tariff Board, after a public inquiry into the fishing industry, that a Commonwealth developmental authority should be established. Details of the establishment, organization and functions of the Authority will be found in Official Year Book No. 38, page 1084.

In accordance with the Tariff Board report, scientific research, as distinct from developmental and administrative functions, was left to the Commonwealth Scientific and Industrial Research Organization which had established a Division of Fisheries for the purpose in 1937.

After the revocation of the Commonwealth war-time powers, the Commonwealth and State spheres were fixed at an interstate conference in February, 1947. The Commonwealth is responsible for extra-territorial waters, whaling, pearling, rehabilitation of ex-servicemen in the fishing industry, fishery training schools, commercial development of fisheries, promotion of uniform conditions governing catches of various species of fish, statistics, information and publications.

4. **North Australia Development Committee.**—In 1946 the North Australia Development Committee gave considerable attention to the fisheries resources of North Australia and recommended that a hydrological and oceanographical survey should be made of the area. It also suggested that a biological survey should be made of pearl shell with particular reference to the possibility of instituting pearl shell culture. It recommended that all information regarding the area should be compiled and made available for scientific workers. It also recommended that an economic survey of the fisheries resources should be made, comparing them particularly with those of the Netherlands East Indies.

5. **Whaling.**—The Commonwealth Fisheries Office carried out extensive investigational and preparatory work for the establishment of an Australian whaling industry. A commission of three members was established in 1949, and a station was built at Babbage Island in Western Australia. Operations did not begin until the 1950 season, when 40 whales were processed. In 1951, with three catcher boats, it was expected that 600 whales would be processed.

Other companies have begun operations in Western Australia, and whaling stations have been established at Pt. Cloates and Albany. At Pt. Cloates, 190 whales were treated during the 1949 season, and 348 were treated in the 1950 season. A catch of 600 whales was expected in 1951. In addition, stations have been established at Moreton Island (Queensland) and Byron Bay (New South Wales).

The Director of Fisheries represents Australia on the International Whaling Commission, which controls whaling throughout the world.

§ 5. The Fishing Industry.

1. **Boats and Men Engaged, and Take.**—(i) *General Fisheries.* The returns have been compiled from particulars supplied by the State Departments, and while the data do not generally lend themselves to presentation on a uniform basis, the principal facts are shown in the following tables. The number of men employed during 1949–50 was 1,803 less than during the previous year, the reductions occurring in New South Wales, Victoria and Tasmania. There were increases in South Australia and Western Australia, while numbers in the Northern Territory remained unchanged. In this connexion it should be noted that the New South Wales element in this figure relates to the number of fishermen's licences issued and not to the number of men engaged. This marked decrease in fishermen's licences was due principally to the enforcement of the law restricting the issue of such licences to persons deriving a substantial portion of their income from personal exertion from the capture and sale of fish. The decline in the number and value of boats engaged and the number of men engaged during 1949–50 is due, in part, to the fact that from December, 1949, new regulations were issued in Victoria providing for two types of licences, viz., " amateur " and " professional ". Figures for Victoria for 1949–50 relate to " professional " fishermen only, whereas previously they had included " amateur " also.

GENERAL FISHERIES, 1949–50.

Particulars.		N.S.W.	Vic.	Q'land.	S. Aust. (a)	W.Aust. (a)	Tas. (b)	Nor. Terr.	Australia.
No. of boats engaged ..		2,065	793	3,158	1,652	762	890	9	9,329
Value of boats and equipment ..	£	1,562,511	617,844	642,312	448,000	478,464	350,000	5,000	4,104,131
No. of men engaged ..		(c) 2,724	1,049	5,813	3,357	1,589	1,082	23	15,637
Total take of—									
Fish ..	cwt.	249,870	86,800	90,400	51,780	79,562	65,855	465	624,732
	£	1,005.777	568,845	d 443,306	248,000	330,141	276,590	3,900	2,876,559
Crayfish ..	doz.	19,063	26,297	..	53,571	213,365	99,876	..	412,172
	£	76,394	55,234	..	81,250	256,037	125,680	..	594,595
Prawns ..	cwt.	25,031	..	2,649	..	171	..	..	27,851
	£	260,616	..	30,661	..	1,198	..	..	292,475
Crabs ..	doz.	14,248	..	27,678	..	355	..	..	42,281
	£	3,301	..	21,244	..	1,986	..	..	26,531

(a) Year ended December, 1949. (b) Year ended March, 1950. (c) Fishermen's licences issued. (d) Excludes £1,050 the value of 115 dugongs.

Figures for Australia for the years 1938–39 and 1945–46 to 1949–50 are shown in the table below :—

GENERAL FISHERIES : AUSTRALIA.

Particulars.		1938–39.	1945–46.	1946–47.	1947–48.	1948–49.	1949–50.
No. of boats engaged		5,462	8,594	10,868	11,059	10,160	9,329
Value of boats and equipment	£	649,026	2,193,349	3,763,998	4,222,310	3,668,270	4,104,131
No. of men engaged(a)		9,081	18,429	19,002	18,378	17,440	15,637
Fish obtained—							
Quantity ..	cwt.	612,735	640,298	668,885	680,081	673,339	624,732
Gross value	£	1,385,281	2,517,540	2,851,936	2,827,110	3,159,588	2,876,559
Crustaceans obtained—							
Gross value	£	134,866	210,402	332,799	456,779	664,268	913,601

(a) *See* letterpress above.

(ii) *Edible Oyster Fisheries.* Edible oyster fisheries are of small dimensions outside New South Wales and Queensland. The available returns show the following takes during 1949–50 in these States :—New South Wales, 72,661 cwt., value £381,472 ; Queensland, 6,165 cwt., value £20,601. In Tasmania the scallop is far more important than the oyster, and in 1949–50 the take was valued at £23,580.

Figures for Australia for the years 1938–39 and 1945–46 to 1949–50 are shown in the following table :—

EDIBLE OYSTER FISHERIES : AUSTRALIA.

Particulars.	1938–39.	1945–46.	1946–47.	1947–48.	1948–49.	1949–50.
No. of boats engaged	754	892	845	815	833	1,132
No. of men engaged ..	850	883	666	626	768	878
Oysters obtained—						
Quantity (*a*) cwt.	89,145	71,062	75,632	72,456	63,060	83,097
Gross value (*b*) £	132,201	238,919	266,815	295,763	291,470	425,745

(*a*) Includes scallops in Tasmania, 8,857 cwt. in 1945–46 ; 7,920 cwt. in 1946–47 ; 7,470 cwt. in 1947–48 ; 5,969 cwt. in 1948–49 ; and 4,211 cwt. in 1949–50 ; 1938–39 weight not available. (*b*) Includes scallops in Tasmania, valued at £14,500 in 1938–39 ; £30,750 in 1945–46 ; £37,256 in 1946–47 ; and £33,115 in 1947–48 ; £26,460 in 1948–49 ; and £23,580 in 1949–50.

(iii) *Pearls, Pearl-shell and Bêche-de-mer—States.* At the outbreak of war in the Pacific in December, 1941, the pearling industry ceased to operate. Operations were resumed in Queensland in 1944–45 but in Western Australia and Northern Territory not until 1946–47. There is no pearl-shell industry in the other States. The following table shows particulars of equipment used, men engaged and production for the year 1949–50 :—

PEARL, PEARL-SHELL AND BÊCHE-DE-MER FISHERIES, 1949-50.

State or Territory.	Boats Engaged.	Value of Boats and Equipment.	Men employed.	Pearl-shell.		Gross Value of Pearls obtained. (*c*)	Gross Value of Bêche-de-Mer obtained.	Trochus-shell.	
				Quantity obtained.	Gross Value.			Quantity obtained.	Gross Value.
	No.	£	No.	Tons.	£	£	£	Tons.	£
Queensland ..	97	324,789	(*a*) 1,123	1,191	423,079	..	..	559	50,548
W. Australia(*b*)	26	68,350	230	312	109,136	1,040	..	18	1,134
Nor. Territory ..	3	11,000	30	39	19,500	..	..	..	..
Australia ..	126	404,139	1,383	1,542	551,715	1,040	..	577	51,682

(*a*) Includes Torres Strait Islanders and Australian aboriginals. (*b*) Year ended December 1949. (*c*) Incomplete ; as returned.

(iv) *Australia.* A summary of the principal statistics relating to pearl, pearl-shell and bêche-de-mer fisheries is given in the following table for the years 1938–39 and 1945–46 to 1949–50.

Details of exports of these items are given in § 6, par. 3 hereafter.

PEARL, PEARL-SHELL AND BÊCHE-DE-MER FISHERIES : AUSTRALIA.

Particulars.	1938–39.	1945–46. (*a*)	1946–47.	1947–48.	1948–49.	1949–50.
Boats engaged No.	181	150	127	123	141	126
Value of boats and equipment £	168,133	51,250	170,820	247,150	387,550	404,139
Men engaged No.	1,750	717	1,141	1,245	1,417	1,383
Pearl-shell obtained—						
Quantity .. tons	2,543	53	309	723	1,346	1,542
Value .. £	222,281	31,800	186,584	415,325	573,785	551,715
Value of—						
Pearls obtained(*b*) £	3,397	..	810	1,294	1,930	1,040
Bêche-de-mer obtained .. £	8,145	..	2,610	500	..	..
Trochus-shell obtained—						
Quantity tons	321	371	669	272	414	577
Value .. £	23,823	48,795	59,335	18,729	28,170	51,682

(*a*) Queensland only available. (*b*) Incomplete ; as returned.

2. **Value of Production.**—(i) *Gross and Local Values*, 1949–50. Although statistics of the value of production of the fishing industry have been on an established basis for some years, attention is drawn to the fact that the actual collection of statistics of the quantity of fish taken presents many difficulties and consequently any defects which may occur in their collection must necessarily be reflected in the value of production. Particulars of the value of other materials used in the process of production are not available for all States, so the values can only be stated at the point of production and not on a net basis as has been done with other industries. Variations in the relative proportions of marketing costs to gross production suggest that complete uniformity in method has not yet been attained.

GROSS AND LOCAL VALUE OF FISHERIES PRODUCTION, 1949–50.

(£'000.)

State.	Gross Production Valued at Principal Markets.	Marketing Costs.	Gross Production Valued at Place of Production.	Value of other Materials used in process of Production.	Net Value of Production.(a)
New South Wales	1,728	279	1,449	157	1,292
Victoria..	727	112	615	(b)	(b)
Queensland	990	230	760	210	550
South Australia	329	42	287	(b)	(b)
Western Australia ..	716	19	697	118	579
Tasmania	426	..	426	(b)	(b)
Total (c)	4,916	682	4,234	(b)	(b)

(a) No deduction has been made for depreciation and maintenance. (b) Not available. (c) Excludes production in the Northern Territory.

(ii) *Local Values*, 1934–35 *to* 1949–50. In the following table the local value of fisheries production and the local value per head of population are shown by States for the years 1934–35 to 1938–39 and 1945–46 to 1949–50. Local value is gross value less marketing costs and is the value at the place of production. The value of materials used in the course of production is not available for all States and consequently production is valued at that point. These values therefore overstate the net values by the extent of these costs.

LOCAL VALUE OF FISHERIES PRODUCTION.

Year.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Total.
			LOCAL VALUE.(a) (£'000.)				
Average, 1934–35 to 1938–39 ..	588	159	292	182	229	80	1,530
1945–46 ..	1,046	466	437	231	203	217	2,600
1946–47 ..	1,302	535	543	253	313	347	3,293
1947–48 ..	1,224	451	561	214	564	490	3,503
1948–49 ..	1,479	522	704	232	679	558	4,174
1949–50 ..	1,449	615	760	287	697	426	4,234

LOCAL VALUE OF FISHERIES PRODUCTION—*continued.*

Local Value per Head of Mean Population.

(*s. d.*)

Year.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Total.
Average, 1934–35 to 1938–39 ..	4 5	1 9	5 11	6 3	10 0	6 11	4 6
1945–46 ..	7 2	4 7	8 1	7 4	8 4	17 4	7 0
1946–47 ..	8 9	5 3	9 11	7 11	12 7	27 3	8 9
1947–48 ..	8 2	4 4	10 1	6 7	22 2	37 5	9 2
1948–49 ..	9 8	4 11	12 5	7 0	26 1	41 7	10 8
1949–50 ..	9 2	5 8	13 1	8 4	25 7	30 9	10 6

(*a*) No deduction has been made for depreciation and maintenance.

3. **Fish Preserving.**—The attempt to establish the fish preserving industry at the commencement of this century met with little success although a bounty was paid to encourage production. The industry, however, continued to operate, but there was no marked development until about 1945–46 when the production of canned fish amounted to 1,700,000 lb. Since that year production has increased considerably and reached a peak of 10,886,254 lb. in 1948–49 but dropped to 7,442,521 lb. in 1949–50.

In addition to the canning of fish, other fish products are obtained. The quantities produced during 1949–50 were 946,482 lb. of smoked fish and 1,039,294 lb. of fish paste.

In 1939 New South Wales and Tasmania were the only producing States, but by 1941 the industry had been extended to South Australia and Western Australia. Details of production are given in the following table for the years 1938–39 and 1945–46 to 1949–50.

PRODUCTION OF CANNED FISH : AUSTRALIA.

Particulars.	1938–39.	1945–46.	1946–47.	1947–48.	1948–49.	1949–50.
Number of factories operating(*a*) ..	3	11	12	16	16	15
Quantity .. lb.	603,302	1,683,612	3,717,248	9,731,702	10,886,254	7,442,521
Value .. £	13,700	147,016	326,078	727,660	973,027	676,812

(*a*) Including factories engaged in the canning of fish loaf.

The varieties canned in the various States differ according to the catch available, but separate details for each variety are not available. In New South Wales salmon is the principal variety, while in South Australia there are more varieties, including mullet, salmon, garfish, etc. In Western Australia herrings, crayfish and mullet are included, and in Tasmania salmon and crayfish.

4. **State Revenue from Fisheries.**—The revenue from fisheries during the year 1949–50 was £45,554 compared with £45,010 in 1948–49 and £34,273 in 1938–39. Of the total of £45,554 in 1949–50 New South Wales collected £22,050, Victoria £3,483, Queensland £10,243, South Australia (year ended December, 1949) £3,384, Western Australia (year ended December, 1949) £3,644, Tasmania (year ended March, 1950) £2,559 and Northern Territory £191.

§ 6. Oversea Trade in Fishery Products.

1. **Imports of Fish.**—The equivalent, in the round, of imported fish consumed in Australia in 1949–50, was 38 per cent. of the total consumption. Particulars of the imports of fish are shown below for the years 1945–46 to 1949–50 in comparison with 1938–39.

FISH AND FISH PRODUCTS : IMPORTS INTO AUSTRALIA.

Classification.	1938–39.	1945–46.	1946–47.	1947–48.	1948–49.	1949–50.
QUANTITY (CWT.)						
Fish—						
Fresh or preserved by cold process—						
Oysters in shell	635	..	..	..	3	..
Other	83,393	23,268	46,196	73,060	100,899	59,152
Potted or concentrated	9,435	112	2,153	12,909	3,012	1,908
Preserved in Tins—						
Fish—						
Herrings	38,917	9,305	45,373	47,236	95,994	81,569
Pilchards	(*a*)	2,958	68	36,329	3,740	735
Salmon	166,695	31,785	10,540	12,031	2,544	14,848
Sardines (including Sild)	29,372	1,849	7,780	58,733	61,962	50,253
Other	14,306	6,607	9,942	24,432	8,682	5,974
Shell Fish—						
Crustaceans	6,829	260	301	4,627	1,623	2,386
Oysters	1,939	294	4	1	29	59
Other	(*a*)	111	194	297	100	201
Smoked or Dried (not salted)	8,122	400	6,870	26,090	32,331	70,524
N.E.I. (including salted)	7,987	3,879	6,309	3,202	3,319	8,577
VALUE (£.)						
Fish—						
Fresh or preserved by cold process—						
Oysters in Shell	641	..	..	..	62	..
Other	248,742	147,386	269,247	417,971	631,549	408,654
Potted or concentrated	111,269	6,194	38,676	265,114	68,077	45,853
Preserved in Tins—						
Fish—						
Herrings	125,961	71,780	303,263	470,549	961,471	712,448
Pilchards	(*a*)	17,902	5,668	303,488	29,798	5,790
Salmon	651,838	162,665	94,115	124,824	26,406	267,575
Sardines (including Sild)	165,959	23,417	118,823	1,061,647	1,269,532	966,161
Other	58,247	116,482	116,160	253,791	124,705	75,761
Shell Fish—						
Crustaceans	64,011	4,090	4,494	81,584	31,335	61,398
Oysters	12,738	3,774	17	19	500	1,323
Other	(*a*)	794	1,785	2,351	1,278	2,475
Smoked or Dried (not salted)	21,483	1,613	40,088	146,628	172,694	432,062
N.E.I. (including salted)	9,965	29,050	34,110	16,125	23,025	35,403
Total	1,470,854	585,147	1,026,446	3,144,091	3,340,432	3,014,903

(*a*) Not recorded separately.

Canned fish constituted the largest proportion of the imports; salmon from Canada, herrings from Canada and the United Kingdom, pilchards from the Union of South Africa and sardines from Norway were the chief varieties imported. The potted fish came chiefly from the United Kingdom and New Zealand, which also supplied a considerable proportion of the fresh fish imported in 1949–50; the bulk of the remainder came from the Union of South Africa. The small import of oysters was supplied by New Zealand, which has also furnished the bulk of the crustaceans imported in recent years.

2. **Exports of Fish.**—During 1949–50 the exports of fish of Australian origin were as follows:—oysters in shell, 888 cwt., £6,668; other fresh or preserved by cold process, 18,029 cwt., £414,108; potted or concentrated, 147 cwt., £7,576; fish preserved in tins, 19,256 cwt., £200,917; shell fish in tins, 293 cwt., £7,002; smoked or dried, 143 cwt., £1,838 and other fish, 13 cwt., £163.

3. **Exports of Pearl and other Shell.**—The exports of pearl, tortoise and trochus-shell of Australian origin are shown hereunder for the years 1938–39 and 1945–46 to 1949–50:—

PEARL, TORTOISE AND TROCHUS-SHELL: EXPORTS FROM AUSTRALIA.

Article.		1938–39.	1945–46.	1946–47.	1947–48.	1948–49.	1949–50.
Pearl-shell ..	cwt.	52,532	959	5,535	15,915	27,885	33,840
	£	244,266	16,917	149,975	408,681	606,767	624,517
Tortoise-shell ..	cwt.	4	..	3	134	..	3
	£	151	36	155	470	35	448
Trochus-shell ..	cwt.	9,108	5,466	16,424	10,096	15,547	10,765
	£	34,166	39,280	81,154	49,888	73,012	49,170
Other	cwt.	..	243	37	135	157	1,234
	£	..	3,037	770	1,240	1,564	15,777

CHAPTER XXIV.

MANUFACTURING INDUSTRY.

§ 1. General.

1. **Introduction.**—A complete statistical account of the growth of the manufacturing industry in Australia cannot be given owing to the fact that prior to 1906 the necessary statistics were not collected by the several States upon a definite and uniform basis. A standard classification of manufacturing industries was formulated at a conference of Australian Statisticians in 1902 and adopted by all States in 1906. Figures upon this basis were prepared for 1907 and subsequent years.

Prior to the federation of the Australian States in 1901, the manufacturing industry in Australia was primarily engaged in the production of goods for local use, mainly of food commodities, furniture, bricks, clothing made from imported materials, printing, the repair rather than the manufacture of machinery, and the preliminary treatment of primary products, such as wool-scouring and sawmilling.

After federation, steady expansion of the manufacturing industry resulted from the removal of interstate trade barriers and the operation of a uniform protective tariff. This expansion was quickened as a result of the demands created by the 1914–18 War, the curtailment of imports, and the rapid growth of spending power within the community. New and more advanced development took place, iron and steel works and many related and subsidiary industries were established, extensive manufacture of machinery began, and a wide range of high-grade products—textiles, metal manufactures, electrical goods, etc.—was added to the list of commodities made in Australia.

A check was made in this expansion by the world-wide economic depression of 1929–33, but returning general prosperity and the opportunities opened to local manufacturers by import restrictions, initiated revival in 1933 and, with depreciation of Australian currency, gave renewed stimulus to manufacturing enterprise. As economic conditions improved, the tariff, revenue duties, and primage were reduced, but without materially prejudicing the progress of local manufactures.

When war broke out in September, 1939, Australia became a major source of supply for Empire countries east of Suez, and in meeting these demands, as well as those arising locally because of interruption of oversea importations, existing manufacturing industries expanded, and new enterprises were developed rapidly for the production of all classes of munitions, aircraft, ships, many new kinds of machinery and metal manufactures, scientific equipment, textiles, chemicals, etc. The outbreak of war with Japan, the basing of Allied armed forces in Australia, and Australian responsibilities for supplies in the South-west Pacific Area, gave added impetus to these developments, and manufacturing in Australia outstripped all previous levels.

The cessation of war production and the transition of industry to a peace-time basis temporarily retarded progress, but from 1945–46 onward, there was renewed expansion of the manufacturing industries to which an inflow of capital from overseas contributed.

2. **Decentralization of Manufacturing Industries.**—Following upon a report by the Secondary Industries Commission, the Commonwealth Government called a conference of Commonwealth and State Ministers in August, 1945 to formulate a national policy for the decentralization of secondary industries. It was agreed that the State Governments should seek to promote decentralization along the lines appropriate to each, providing necessary services, assistance and concessions to the full extent of State resources. The Commonwealth undertook to collaborate in all matters of Commonwealth industrial policy affecting the development and location of industry, to investigate in association with the States the prospects of developing secondary industries in selected areas, to advise the States of developments desirable for defence purposes, and to provide financial assistance for projects of national importance where the cost would be great relative to the State's resources.

The Commonwealth has assisted decentralization by allocating to private industry munitions and other defence buildings in decentralized areas and accommodating migrants in provincial centres with prospects of development. Overseas firms contemplating establishment in Australia are encouraged to select locations in rural areas or the less industrialized States.

3. **Commonwealth Division of Industrial Development.**—The Secondary Industries Commission was established in 1943 to investigate post-war uses for munitions factories, to plan for the transition of secondary industries from war-time to peace-time activities, and generally to seek to increase industrial efficiency and to explore opportunities for new industries. The Commission was disbanded in April, 1950.

The functions of the Division of Industrial Development (formed in February, 1945 as the Secondary Industries Division of the Department of Post-war Reconstruction) were extended in August, 1948 to include the encouragement of industrial development, the exercising of Commonwealth responsibilities for the decentralization of industry, the promotion of industrial efficiency (especially the study of technical, production, and managerial problems and the dissemination and application of new knowledge and methods), the encouragement of the development of technological institutes and the publication of studies of the structure and operation of Australian manufacturing industries. The Division was attached to the Ministry of National Development when formed in March, 1950 to plan the development of national resources and to promote decentralization and regional development in conjunction with the States.

4. **Customs and Excise Tariffs and Bounties on Manufactures.**—Particulars of Australian customs and excise tariffs, and the constitution and functions of the Australian Tariff Board in relation to matters affecting the industrial development of Australia, are given in Chapter XII.—Trade of this volume.

Bounties are paid by the Commonwealth Government to encourage local manufacture of certain products. The Statutory provisions usually fix a term of operation of the bounty, provide for payment at a rate varying according to changes in the corresponding customs duty, specify the annual maximum amount of bounty payable, and require the bounty to be withheld or reduced if a manufacturers' net profit in production of the commodity exceeds a certain rate or if rates of wages ard conditions of employment in production of the commodity do not conform to prescribed standards.

5. **Scientific Research and Standardization.**—(i) *The Commonwealth Scientific and Industrial Research Organization.* The function of this Organization, more detailed reference to which appears on p. 1274, is to initiate and conduct research in connexion with industries in Australia, to train research workers, to establish industrial research studentships and fellowships, to make grants in aid of pure scientific research, to establish industrial research associations in various industries, to provide for testing and standardization of scientific equipment, to conduct an information service relating to scientific and industrial matters, and to act for Australia in liaison with other countries in matters of scientific research.

(ii) *The Standards Association of Australia.* This Association, which is referred to in greater detail on p. 1279, acts as the national standardizing organization of Australia and issues standard specifications for materials and codes of practice. Specifications and codes are prepared and revised periodically in accordance with the needs of industry, and standards are evolved and accepted by general consent.

(iii) *The National Association of Testing Authorities.* The National Association of Testing Authorities organizes national testing facilities throughout Australia to serve private and governmental needs. Laboratories may register voluntarily in respect of tests within their competence and the Association is to ensure the maintenance of their standards of testing. It is expected that there will be general acceptance of certificates of tests issued in the name of the Association by the registered laboratories.

6. **Definitions in Factory Statistics.**—The statistics relating to factories have been compiled from returns supplied annually by manufacturers to, and tabulated by, the several State Statisticians, in the terms of the Statistical Acts of the States. A return must be supplied in respect of every factory, which is defined for this purpose as an establishment where four or more persons are employed or where power (other than manual) is used in any manufacturing process. This definition includes factories in educational and charitable institutions, reformatories, and other public institutions (except penitentiaries) but does not cover smallgoods makers, laundries, farriers, photography studios, florists and seedsmen, and most abattoirs.

If a manufacturing business is conducted in conjunction with any other activity particulars relating to the manufacturing section only are included in the statistics. Where two or more industries are conducted in the same establishment, a separate return is obtained if practicable for each industry.

Manufacturers are requested to state in their returns particulars as to the number, age, wages, etc., of their employees, the value of premises and equipment, the horse-power of machinery, the value, and in most cases the quantities, of raw materials and fuel used, and quantities and values of principal materials and articles produced. The returns obtained from manufacturers are not intended to show a complete record of the income or expenditure of factories nor to show the profits or losses of factories collectively or individually.

The average number of persons employed is quoted on two different bases: the average during the period of operation and the average over the whole year. Of these, the former is simply the aggregate of the average number of persons employed in each factory during its period of operation (whether the whole or only part of the year). This average is used only in respect of details relating to classification according to number of persons employed. The latter, which is used in all other instances, is calculated by reducing the average number working in the factories (irrespective of period of operation) to the equivalent number working for a full year.

Working proprietors are included in all employment figures other than those relating to monthly employment and age dissections, but salaries and wages paid in all cases exclude drawings by working proprietors.

The value of factory output is the value of the goods manufactured or their value after passing through the particular process of manufacture and includes the amount received for repair work, work done on commission and receipts for other factory work. The basis of valuation of the output is the selling value of the goods at the factory, exclusive of all delivery costs and charges and excise duties, but inclusive of bounty and subsidy payments to the manufacturer of the finished article.

The value of production is the value added to raw materials by the process of manufacture. It is calculated by deducting from the value of factory output the value (at the factory) of the materials used, containers and packing, power, fuel, and light used, tools replaced, and materials used in repairs to plant (but not depreciation charges).

In the process of manufacture, many goods are treated in several industries, the output of one becoming the raw materials of another, so that such commodities are counted more than once in the aggregate value of output and of raw materials. Examples are raw sugar passing from the mills to the refinery, metals from the smelters which become raw materials in establishments concerned in the production of metal goods, and timber from the sawmills used in furniture factories and in joinery. On the other hand, the aggregate value of production is assessed without duplication, the value added by each industry being taken into account once only. For this reason the value of production, and not the value of the output, is used as a measure of activity in the manufacturing industries as a whole.

In the special case of Government factories and workshops, the value of output is estimated by adding 10 per cent. to the value of materials and fuel used and other factory costs, including salaries and wages paid.

7. **Classification of Factories.**—In the compilation of statistical data relating to factories in Australia, a standard classification of manufacturing industries, formulated at a conference of Australian statisticians in 1902 and revised from time to time, was used until the year 1929–30. A new classification was introduced in 1930–31, and this in turn, was revised and extended (principally in regard to the placement and composition of sub-classes) in accordance with decisions of the Statisticians' Conference, 1945.

Owing to limitations of space, details published in general tables in this chapter are confined either to the sixteen classes of industry or total factory activity. Particulars of certain of the sub-classes shown below are published in the latter portion of this chapter and full details for all sub-classes may be found in the *Secondary Industries Bulletin*, published annually.

The principal classes and sub-classes in the current classification of factories are as follows :—

CLASSIFICATION OF FACTORIES.

CLASS I.—TREATMENT OF NON-METALLIFEROUS MINE AND QUARRY PRODUCTS.

Coke Works.
Briquetting and Pulverized Coal.
Carbide.
Lime, Plaster of Paris, Asphalt.
Fibrous Plaster and Products.
Marble, Slate, etc.
Cement.
Asbestos Cement Sheets, etc.
Other Cement Goods.
Other.

CLASS II.—BRICKS, POTTERY, GLASS, ETC.

Bricks and Tiles, Fire Bricks and Fire-clay Goods.
Earthenware, China, Porcelain, Terra-cotta.
Glass (other than Bottles).
Glass Bottles.
Other.

CLASS III.—CHEMICALS, DYES, EXPLOSIVES, PAINTS, OILS, GREASE.

Industrial and Heavy Chemicals and Acids.
Pharmaceutical and Toilet Preparations.
Explosives.
White Lead, Paints, Varnish.
Oils, Vegetable.
Oils, Mineral.
Oils, Animal.
Boiling Down, Tallow Refining.
Soap and Candles.
Chemical Fertilizers.
Inks, Polishes, etc.
Matches.
Other.

CLASS IV.—INDUSTRIAL METALS, MACHINES, IMPLEMENTS AND CONVEYANCES.

Smelting, Converting, Refining, and Rolling of Iron and Steel.
Foundries—Ferrous.
Plant, Equipment and Machinery.
Other Engineering.
Extracting and Refining of other Metals, Alloys.
Electrical Machinery, Cables and Apparatus.
Construction and Repair of Vehicles (10 groups).
Ship and Boat Building and Repairing, Marine Engineering.
Cutlery and Small Hand Tools.
Agricultural Machines and Implements.
Non-Ferrous Metals—
  Rolling and Extrusion.
  Foundries, Casting, etc.
Iron and Steel Sheets.
Sheet metal Working, Pressing, and Stamping.
Pipes, Tubes and Fittings—Ferrous.
Wire and Wire Netting (including Nails).
Stoves, Ovens and Ranges.
Gas Fittings and Meters.
Lead Mills.

CLASS IV.—INDUSTRIAL METALS, MACHINES, IMPLEMENTS AND CONVEYANCES—*continued.*

Sewing Machines.
Arms, Ammunition (excluding Explosives).
Wireless and Amplifying Apparatus.
Other Metal Works.

CLASS V.—PRECIOUS METALS, JEWELLERY, PLATE.

Jewellery.
Watches and Clocks (including Repairs).
Electroplating (Gold, Silver, Chromium).

CLASS VI.—TEXTILES AND TEXTILE GOODS (NOT DRESS).

Cotton Ginning.
Cotton Spinning and Weaving.
Wool—Carding, Spinning, Weaving.
Hosiery and other Knitted Goods.
Silk, Natural.
Rayon, Nylon and other Synthetic Fibres.
Flax Mills.
Rope and Cordage.
Canvas Goods, Tents, Tarpaulins, etc.
Bags and Sacks.
Other.

CLASS VII.—SKINS AND LEATHER (NOT CLOTHING OR FOOTWEAR).

Furriers and Fur Dressing.
Woolscouring and Fellmongery.
Tanning, Currying, and Leather Dressing.
Saddlery, Harness, Whips.
Machine Belting.
Bags, Trunks, etc.

CLASS VIII.—CLOTHING (EXCEPT KNITTED).

Tailoring and Ready-made Clothing.
Waterproof and Oilskin Clothing.
Dressmaking.
Millinery.
Shirts, Collars, Underclothing.
Foundation Garments.
Handkerchiefs, Ties, Scarves.
Hats and Caps.
Gloves.
Boots and Shoes (not rubber).
Boot and Shoe Repairing.
Boot and Shoe Accessories.
Umbrellas and Walking Sticks.
Dyeworks and Cleaning.
Other.

CLASS IX.—FOOD, DRINK AND TOBACCO.

Flour Milling.
Cereal Foods and Starch.
Animal and Bird Foods.
Chaffcutting and Corn Crushing.
Bakeries (including Cakes and Pastry).
Biscuits.
Sugar Mills.

CLASS IX.—FOOD, DRINK AND TOBACCO—*continued.*

Sugar Refining.
Sugar Confectionery (including Chocolate).
Jam, Fruit and Vegetable Canning.
Pickles, Sauces, Vinegar.
Bacon Curing.
Butter Factories.
Cheese Factories.
Condensed and Dried Milk Factories.
Margarine.
Meat and Fish Preserving.
Condiments, Coffee, Spices, etc.
Ice and Refrigerating.
Salt Refining.
Aerated Waters, Cordials, etc.
Breweries.
Distilleries.
Wine Making.
Cider and Perry Making.
Malting.
Bottling.
Tobacco, Cigars, Cigarettes, Snuff.
Dehydrated Fruit and Vegetables.
Ice-cream.
Sausage Skins.
Arrowroot.
Other.

CLASS X.—WOOD WORKING AND BASKETWARE.

Sawmills.
Plywood and Veneer Mills.
Bark Mills.
Joinery.
Cooperage.
Boxes and Cases.
Basketware and Wickerware (including Sea-grass and Bamboo Furniture).
Perambulators.
Wall and Ceiling Boards (not Plaster or Cement).
Other.

CLASS XI.—FURNITURE, BEDDING, ETC.

Billiard Tables, Cabinet and Furniture Making and Upholstery.
Bedding and Mattresses.
Furnishing Drapery, etc.

CLASS XI.—FURNITURE, BEDDING, ETC.—*continued.*

Picture Frames.
Blinds.
Other.

CLASS XII.—PAPER, STATIONERY, PRINTING, BOOKBINDING, ETC.

Newspapers and Periodicals.
Printing—
  Government.
  General, including Bookbinding.
Manufactured Stationery.
Stereotyping and Electrotyping.
Process and Photo Engraving.
Cardboard Boxes, Cartons and Containers.
Paper Bags.
Paper Making.
Pencils, Penholders, Chalks, Crayons.
Other.

CLASS XIII.—RUBBER.

Rubber Goods and Tyres Made.
Tyre Retreading and Repairing.

CLASS XIV.—MUSICAL INSTRUMENTS.

Gramophones and Gramophone Records.
Pianos, Piano-Players, Organs.
Other.

CLASS XV.—MISCELLANEOUS PRODUCTS.

Linoleum, Leather Cloth, Oil Cloth, etc.
Bone, Horn, Ivory and Shell.
Plastic Moulding and Products.
Brooms and Brushes.
Optical Instruments and Appliances.
Surgical and other Scientific Instruments and Appliances.
Photographic Material, including Developing and Printing.
Toys, Games and Sports Requisites.
Artificial Flowers.
Other.

CLASS XVI.—HEAT, LIGHT, AND POWER.

Electric Light and Power.
Gas Works.

8. **Factory Development since 1901—Australia.**—The development of the manufacturing industries in Australia at intervals since 1901 is summarized in the following table :—

FACTORIES : AUSTRALIA.

Year.	Factories.	Employment.(*a*)	Salaries and Wages Paid.(*b*)	Value of—				
				Materials and Fuel Used.	Output.	Production. (*c*)	Land and Buildings.	Plant and Machinery.
	No.	'000.	£'000.	£'000.	£'000.	£'000.	£'000.	£'000.
1901	11,143	198	(*d*)	(*d*)	(*d*)	(*d*)	(*d*)	(*d*)
1911	14,455	312	27,528	81,763	133,022	51,259	32,701	31,516
1920–21	17,113	367	62,932	213,579	323,993	110,434	60,831	68,655
1930–31	21,751	339	62,455	172,489	290,799	118,310	112,211	124,498
1938–39	26,941	565	106,743	297,004	500,420	203,416	130,930	143,662
1943–44	27,674	767	216,874	495,504	891,739	366,235	177,147	180,993
1944–45	28,930	751	207,652	523,722	886,005	362,283	182,580	183,917
1945–46	31,184	745	205,819	515,325	867,648	352,323	186,939	185,545
1946–47	34,768	805	237,174	600,164	1,011,026	410,862	193,152	189,693
1947–48	37,356	849	285,765	720,822	1,210,119	489,297	211,143	213,710
1948–49	40,070	890	339,287	856,610	1,425,325	568,715	232,740	246,494
1949–50	41,596	918	385,896	983,923	1,645,411	661,488	259,549	285,602

(*a*) 1901 and 1911—average employment during period of operation. Later years relate to average employment over whole year. Working proprietors included in all years. (*b*) Excludes drawings by working proprietors. (*c*) Value of output less value of materials and fuel, etc., used. (*d*) Not available.

Single year tables in this issue relate to the year 1949–50 and in the immediately preceding issue to the year 1947–48. Corresponding tables for 1948–49 may be found in the Production Bulletin 1948–49, No. 43, Part 1—Secondary Industries.

§ 2. Number of Factories.

1. **Number of Factories in each State.**—The following table shows the number of factories in each State for the five years 1945–46 to 1949–50 compared with 1938–39 :—

FACTORIES : NUMBER.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
1938–39 ..	9,464	9,250	3,087	2,067	2,129	944	26,941
1945–46 ..	12,287	10,195	2,945	2,395	2,280	1,082	31,184
1946–47 ..	13,961	10,949	3,367	2,707	2,615	1,169	34,768
1947–48 ..	15,194	11,642	3,642	2,865	2,788	1,225	37,356
1948–49 ..	16,087	12,702	4,083	2,927	2,925	1,346	40,070
1949–50 ..	16,346	13,231	4,494	3,046	3,023	1,456	41,596

2. **Number of Factories in Industrial Classes.**—(i) *Australia.* The next table shows the number of factories in Australia during 1938–39 and the years 1945–46 to 1949–50 classified in the industrial classes agreed upon by the Conference of Statisticians in 1930. This classification, which was introduced during 1930–31, superseded the grouping which had been in use since 1902. Details of some of the principal industries included in the table will be found in § 11 hereinafter.

FACTORIES : NUMBER IN INDUSTRIAL CLASSES, AUSTRALIA.

Class of Industry.	1938–39.	1945–46.	1946–47.	1947–48.	1948–49.	1949–50.
I. Treatment of Non-metalliferous Mine and Quarry Products	564	591	743	933	1,025	1,126
II. Bricks, Pottery, Glass, etc.	471	410	481	517	544	561
III. Chemicals, Dyes, Explosives, Paints, Oils and Grease	666	886	929	975	1,010	1,006
IV. Industrial Metals, Machines and Conveyances	7,255	8,816	10,055	10,910	11,801	12,362
V. Precious Metals, Jewellery and Plate..	290	337	465	555	623	619
VI. Textiles and Textile Goods (not Dress)	611	883	930	982	1,065	1,155
VII. Skins and Leather (not Clothing or Footwear)	533	651	703	727	746	751
VIII. Clothing (except Knitted)	4,314	5,215	5,733	6,069	6,533	6,620
IX. Food, Drink and Tobacco	5,202	5,865	6,236	6,475	6,659	6,796
X. Woodworking and Basketware ..	2,822	3,148	3,608	4,001	4,530	4,893
XI. Furniture of Wood, Bedding, etc. ..	1,149	1,140	1,407	1,568	1,726	1,820
XII. Paper, Stationery, Printing, Bookbinding, etc.	1,816	1,703	1,779	1,852	1,942	1,981
XIII. Rubber	299	308	345	371	391	404
XIV. Musical Instruments	34	41	48	56	64	59
XV. Miscellaneous Products	413	714	832	899	947	985
Total, Classes I. to XV. ..	26,439	30,708	34,294	36,890	39,606	41,138
XVI. Heat, Light and Power	502	476	474	466	464	458
Grand Total	26,941	31,184	34,768	37,356	40,070	41,596

Although not the best index of manufacturing activity, the number of factories affords some indication of the development of secondary industries. Except for the two war years 1941–42 and 1942–43, where there were decreases, the number of factories increased each year from 1931–32 to 1949–50; in the latter year the number of factories in Australia reached the record total of 41,596 or 54.4 per cent. greater than in 1938–39.

(ii) *States,* 1949–50. The following table shows the number of factories in each State in 1949–50, classified according to the nature of the industry :—

FACTORIES : NUMBER IN INDUSTRIAL CLASSES, 1949–50.

Class of Industry.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Aust.
I. Treatment of Non-Metalliferous Mine and Quarry Products ..	396	365	86	129	100	50	1,126
II. Bricks, Pottery, Glass, etc. ..	268	135	46	56	41	15	561
III. Chemicals, Dyes, Explosives, Paints, Oils and Grease ..	500	298	64	68	53	23	1,006
IV. Industrial Metals, Machines, Conveyances	4,931	3,898	1,293	942	948	350	12,362
V. Precious Metals, Jewellery and Plate	254	218	40	51	49	7	619
VI. Textiles and Textile Goods (not Dress)	414	621	31	45	30	14	1,155
VII. Skins and Leather (not Clothing or Footwear)	330	276	54	45	36	10	751
VIII. Clothing (except Knitted) ..	2,895	2,373	458	412	409	73	6,620
IX. Food, Drink and Tobacco ..	2,356	1,918	1,022	643	561	296	6,796
X. Woodworking and Basketware ..	1,813	1,213	811	260	318	478	4,893
XI. Furniture of Wood, Bedding, etc.	611	581	242	143	160	83	1,820
XII. Paper, Stationery, Printing, Bookbinding, etc.	812	711	181	123	127	27	1,981
XIII. Rubber	155	120	52	40	21	16	404
XIV. Musical Instruments	25	18	4	7	5	..	59
XV. Miscellaneous Products.. ..	455	383	49	43	46	9	985
Total, Classes I. to XV. ..	16,215	13,128	4,433	3,007	2,904	1,451	41,138
XVI. Heat, Light and Power ..	131	103	61	39	119	5	458
Grand Total ..	16,346	13,231	4,494	3,046	3,023	1,456	41,596

§ 3. Classification of Factories according to Number of Persons Employed.

1. **General.**—The size classification of factories is based on the average weekly number of persons employed during the period of operation (including working proprietors). Prior to 1945–46 there was no dissection of the "over 100 employees" group, but for that and subsequent years this group was subdivided into the seven size groups as shown in the table below.

2. **States, 1949–50.**—The following table shows, for each State, the number of factories classified according to the average number of persons employed in 1949–50 :—

FACTORIES : CLASSIFICATION ACCORDING TO SIZE OF FACTORY, 1949–50.

Size of Factory (Persons employed).	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
			NUMBER OF FACTORIES.				
Under 4	4,771	3,944	1,323	826	1,287	553	12,704
4	1,399	1,168	451	306	171	167	3,662
5 to 10	4,585	3,387	1,276	793	793	392	11,226
11 to 20	2,434	1,983	652	486	362	164	6,081
21 to 50	1,898	1,653	479	370	262	106	4,768
51 to 100.. ..	661	581	147	143	95	47	1,674
101 to 200 ..	334	281	101	66	37	14	833
201 to 300 ..	88	99	38	22	9	3	259
301 to 400 ..	45	53	9	11	3	2	123
401 to 500 ..	36	20	3	6	2	1	68
501 to 750 ..	44	36	8	6	1	3	98
751 to 1,000 ..	16	12	3	3	..	2	36
Over 1,000 ..	35	14	4	8	1	2	64
Total ..	16,346	13,231	4,494	3,046	3,023	1,456	41,596

The relative importance of large and small factories is illustrated by a classification of the average number of persons employed according to the size of factory in which they work :—

FACTORIES : CLASSIFICATION OF PERSONS EMPLOYED ACCORDING TO SIZE OF FACTORY, 1949–50.

Size of Factory (Persons employed).	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
AVERAGE NUMBER EMPLOYED DURING PERIOD WORKED.							
Under 4	9,824	8,005	2,929	1,741	2,685	1,228	26,412
4	5,596	4,672	1,804	1,224	684	668	14,648
5 to 10	32,064	23,470	8,849	5,560	5,341	2,672	77,956
11 to 20	35,290	29,214	9,518	7,022	5,199	2,341	88,584
21 to 50	59,404	51,914	15,116	11,397	8,478	3,269	149,578
51 to 100.. ..	45,817	40,789	10,568	9,879	6,686	3,159	116,898
101 to 200 ..	46,249	38,769	14,639	9,206	5,082	1,872	115,817
201 to 300 ..	21,205	24,714	8,942	5,329	2,184	779	63,153
301 to 400 ..	15,543	18,550	2,980	3,754	949	711	42,487
401 to 500 ..	16,195	9,031	1,344	2,648	855	482	30,555
501 to 750 ..	27,117	21,257	4,924	3,466	522	1,777	59,063
751 to 1,000 ..	13,663	10,209	2,541	2,533	..	1,858	30,804
Over 1,000 ..	60,548	24,316	6,402	15,458	2,758	3,539	113,021
Total ..	388,515	304,910	90,556	79,217	41,423	24,355	928,976
Average per Factory	23.77	23.05	20.15	26.01	13.70	16.73	22.33

3. **Australia, 1938–39 and 1945–46 to 1949–50.**—In the following table factories in Australia during 1938–39 and each of the five years 1945–46 to 1949–50 are classified according to the number of persons employed in conformity with the practice prior to 1945–46.

FACTORIES : CLASSIFICATION ACCORDING TO NUMBER OF PERSONS EMPLOYED, AUSTRALIA.

Year.	Establishments Employing on the Average—							
	20 and under.		21 to 100.		101 and upwards.		Total.	
	Establishments.	Persons employed.	Establishments.	Persons employed.	Establishments.	Persons employed.	Establishments.	Persons employed.
1938–39—								
Number	21,982	129,505	4,013	170,971	946	272,022	26,941	572,498
Average per establishment	..	5.89	..	42.60	..	287.55	..	21.25
Proportion of total %	81.59	22.62	14.90	29.86	3.51	47.52	100	100
1945–46—								
Number	24,819	154,242	5,080	211,781	1,285	390,538	31,184	756,561
Average per establishment	..	6.21	..	41.69	..	303.92	..	24.26
Proportion of total %	79.59	20.39	16.29	27.99	4.12	51.62	100	100
1946–47—								
Number	27,676	173,371	5,771	239,768	1,321	399,881	34,768	813,020
Average per establishment	..	6.26	..	41.55	..	302.77	..	23.38
Proportion of total %	79.60	21.32	16.60	29.50	3.80	49.18	100	100
1947–48—								
Number	29,947	187,085	6,014	249,858	1,395	419,725	37,356	856,668
Average per establishment	..	6.25	..	41.55	..	300.88	..	22.93
Proportion of total %	80.17	21.84	16.09	29.16	3.74	49.00	100	100
1948–49—								
Number	32,394	200,889	6,226	257,204	1,450	439,710	40,070	897,803
Average per establishment	..	6.20	..	41.31	..	303.25	..	22.41
Proportion of total %	80.84	22.38	15.54	28.65	3.62	48.97	100	100
1949–50—								
Number	33,673	207,600	6,442	266,476	1,481	454,900	41,596	928,976
Average per establishment	..	6.17	..	41.37	..	307.16	..	22.33
Proportion of total %	80.95	22.35	15.49	28.68	3.56	48.97	100	100

§ 4. Power Equipment in Factories.

1. **General.**—In 1936–37 statistics of power equipment in factories were collected on a basis different from that previously in use. Information now obtained relates to the "rated horse-power" of engines ordinarily in use and of engines in reserve or idle, omitting obsolete engines. In addition, particulars of the power equipment of Central Electric Stations are collected in greater detail. To avoid duplication it is essential that some distinction should be made between Central Electric Stations and other classes of industries. In the following tables Central Electric Stations have been treated separately from other factories.

In par. 2 below, 982 factories are shown in 1949–50 as using no power other than hand-power, the distribution of these factories among the various industries being as follows: Lime, Plaster and Asphalt, 12; Industrial and Heavy Chemicals and Acids and Pharmaceutical and Toilet Preparations, 11; Galvanized Ironworking, Tinsmithing, 36; Tailoring and Ready-made Clothing, 297; Dressmaking, 79; Millinery, 24; Bakeries, 126; Cabinet and Furniture Making, 32; all others industries, 265.

2. **Rated Horse-power of Engines in Factories other than Central Electric Stations.**—The following table shows the number of factories using power-driven machinery, those using manual labour only, and the total rated horse-power of engines and electric motors ordinarily in use and in reserve or idle during 1949–50 :—

FACTORIES(*a*): TOTAL RATED HORSE-POWER OF ENGINES AND ELECTRIC MOTORS, 1949–50.

State.	Number of Establishments.			Rated Horse-power of Engines and Motors.	
	Using Power.	Others.	Total.	Ordinarily in use.	In Reserve or Idle (omitting obsolete).
New South Wales ..	16,158	96	16,254	1,285,130	179,247
Victoria	12,890	274	13,164	863,075	112,674
Queensland	4,226	223	4,449	311,559	36,905
South Australia ..	2,856	154	3,010	240,090	33,089
Western Australia ..	2,709	199	2,908	120,380	18,160
Tasmania	1,417	36	1,453	145,079	20,239
Australia.. ..	40,256	982	41,238	2,965,313	400,314

(*a*) Excludes Central Electric Stations.

3. **Rated Horse-power of Engines and Electric Motors Ordinarily in Use.**—(i) *According to Type, States.* Particulars of the types of engines, etc., and the total rated horse-power ordinarily in use in each State are given below :—

FACTORIES(*a*): TOTAL RATED HORSE-POWER OF ENGINES AND ELECTRIC MOTORS ORDINARILY IN USE, 1949–50.

State.	Total Rated Horse-power of Engines and Electric Motors ordinarily in use.								
	Steam.		Internal Combustion.			Water.	Motors driven by electricity.		Total. (*b*)
	Reciprocating.	Turbine.	Gas.	Light Oils.	Heavy Oils.		Purchased.	Own Generation. (*c*)	
N.S.W. ..	107,681	75,824	2,648	31,278	34,474	226	1,032,999	74,162	1,285,130
Victoria ..	23,974	36,414	1,954	10,858	14,134	1,175	774,566	34,493	863,075
Queensland ..	81,409	15,060	6,780	8,877	19,474	..	179,959	52,771	311,559
S. Australia ..	6,642	5,746	1,719	5,405	10,684	10	209,884	19,355	240,090
W. Australia ..	9,719	160	1,933	4,679	11,583	..	92,306	5,745	120,380
Tasmania ..	2,622	2,013	1	6,889	1,802	292	131,460	40	145,079
Australia ..	232,047	135,217	15,035	67,986	92,151	1,703	2,421,174	186,566	2,965,313

(*a*) Excludes Central Electric Stations. (*b*) Excludes particulars in column (*c*).

(ii) *According to Type, Australia.* In the following table details of the total rated horse-power of the various types of engines in use are given for Australia for the years 1945–46 to 1949–50 compared with 1938–39.

FACTORIES(*a*): TYPES AND RATED HORSE-POWER OF ENGINES, ETC., ORDINARILY IN USE, AUSTRALIA.

Year.	Total Rated Horse-power of Engines and Electric Motors ordinarily in use.								
	Steam.		Internal Combustion.			Water.	Motors driven by electricity.		Total. (*b*)
	Reciprocating.	Turbine.	Gas.	Light Oils.	Heavy Oils.		Purchased.	Own Generation. (*c*)	
1938–39 ..	268,409	84,149	32,914	17,970	55,800	1,616	1,017,911	179,889	1,478,769
1945–46 ..	236,378	117,736	20,481	23,876	56,189	1,737	1,755,036	226,692	2,211,433
1946–47 ..	234,752	110,292	18,522	29,283	58,262	1,964	1,912,926	182,112	2,366,001
1947–48 ..	235,116	110,646	17,182	33,656	63,728	1,830	2,073,409	177,598	2,535,567
1948–49 ..	229,953	120,289	16,024	55,158	72,165	1,515	2,249,360	177,296	2,744,464
1949–50 ..	232,047	135,217	15,035	67,986	92,151	1,703	2,421,174	186,566	2,965,313

(*a*) Excludes Central Electric Stations. (*b*) Excludes particulars in column (*c*).

(iii) *In Classes of Industry*, 1949–50. The next table shows the total rated horse-power of engines and electric motors ordinarily in use in the various classes of industry in each State during 1949–50.

FACTORIES(*a*): TOTAL RATED HORSE-POWER OF ENGINES AND ELECTRIC MOTORS ORDINARILY IN USE, 1949–50.

Class of Industry.	N.S.W.	Vic.	Q'land.	S.Aust.	W.Aust.	Tas.	Aust.
I. Treatment of Non-metalliferous Mine and Quarry Products	68,609	34,479	10,599	11,928	6,498	13,405	145,518
II. Bricks, Pottery, Glass, etc. ..	38,843	22,765	5,278	6,461	4,820	1,246	79,413
III. Chemicals, Dyes, Explosives, Paints, Oils and Grease ..	69,622	71,125	4,844	15,993	8,941	1,927	172,452
IV. Industrial Metals, Machines, Conveyances	602,073	250,644	69,198	108,124	31,341	41,076	1,102,456
V. Precious Metals, Jewellery and Plate	4,443	5,357	378	809	460	34	11,481
VI. Textiles and Textile Goods (not Dress)	46,726	77,268	4,368	6,830	1,597	4,827	141,616
VII. Skins and Leather (not Clothing or Footwear) ..	17,377	16,574	3,599	4,244	2,058	966	44,818
VIII. Clothing (except Knitted) ..	23,417	23,180	2,744	2,478	1,666	540	54,025
IX. Food, Drink and Tobacco ..	163,401	133,819	130,296	43,066	29,260	13,261	513,103
X. Woodworking and Basketware	122,471	87,868	63,188	21,755	23,981	24,462	343,725
XI. Furniture of Wood, Bedding, etc.	15,250	13,483	6,169	5,085	3,642	1,518	45,147
XII. Paper, Stationery, Printing, Bookbinding, etc. ..	46,981	63,413	6,672	8,754	4,088	41,115	171,023
XIII. Rubber	37,026	37,455	2,038	1,480	335	226	78,560
XIV. Musical Instruments ..	1,772	301	32	13	10	..	2,128
XV. Miscellaneous Products ..	15,064	15,966	347	1,510	415	321	33,623
Total, Classes I. to XV. ..	1,273,075	853,697	309,750	238,530	119,112	144,924	2,939,088
XVI. Gas Works	12,055	9,378	1,809	1,560	1,268	155	26,225
Grand Total	1,285,130	863,075	311,559	240,090	120,380	145,079	2,965,313

(*a*) Excludes Central Electric Stations.

4. **Capacity of Engines and Generators installed in Central Electric Stations.**—(i) *According to Type, Australia.* Particulars of the type and the capacity of engines and generators installed in Central Electric Stations in Australia in 1949–50 are given in the following table :—

CENTRAL ELECTRIC STATIONS : POWER EQUIPMENT, AUSTRALIA, 1949–50.

Particulars.		Capacity of Engines and Generators.						
		Steam.		Internal Combustion.			Water.	Total.
		Reciprocating.	Turbine.	Gas.	Light Oils.	Heavy Oils.		
Engines installed	Rated H.P.	18,378	2,579,735	20,967	8,734	214,848	401,219	3,243,881
Generators installed—								
Kilowatt capacity—								
Total installed ..	K.W.	12,436	1,910,333	14,456	4,844	142,521	284,233	2,368,823
Effective capacity	„	11,761	1,649,473	11,405	3,607	129,699	289,020	2,094,965
Horse-power equivalent—								
Total installed ..	H.P.	16,670	2,560,763	19,378	6,493	191,047	381,008	3,175,359
Effective capacity	„	15,765	2,211,086	15,288	4,835	173,859	387,426	2,808,259

(ii) *States.* Details of the capacity of engines and generators installed in Central Electric Stations in each State in 1949–50 are given in the next table.

CENTRAL ELECTRIC STATIONS : POWER EQUIPMENT, 1949–50.

Particulars.		N.S.W.	Vic.	Q'land.	S. Aust.	W.Aust.	Tas.	Australia.
Engines installed	Rated H.P.	1,270,624	905,099	346,889	281,809	168,410	271,050	3,243,881
Generators installed—								
Kilowatt capacity—								
Total installed ..	K.W.	980,871	619,889	246,974	206,743	119,396	194,950	2,368,823
Effective capacity	„	850,332	584,498	160,265	190,461	109,187	200,222	2,094,965
Horse-power equivalent—								
Total installed ..	H.P.	1,314,838	830,949	331,064	277,135	160,047	261,326	3,175,359
Effective capacity	„	1,139,853	783,508	214,832	255,309	146,363	268,394	2,808,259

§ 5. Employment in Factories.

1. **Number Employed.**—(i) *General.* All persons employed in the manufacturing activities of a factory, including proprietors who work in their own business and "outworkers" (*see* par. 4 (ii) hereinafter) are counted as factory employees, while those employed in selling and distributing, such as salesmen, travellers, collectors, carters employed solely on outward delivery of manufactured goods and retailing storemen are excluded. Prior to 1945–46 the occupational grouping collected was (i) working proprietors ; (ii) managers and overseers ; (iii) accountants and clerks ; (iv) enginedrivers and firemen ; (v) workers in factory, skilled and unskilled ; (vi) carters and messengers ; and (vii) persons working regularly at home for the establishment. This grouping did not record separate details for technical staff (e.g., chemists, draftsmen, etc.) and supervisory staff and in 1945–46 the set-up on the collection form was amended to obtain the following groupings :—(i) Working proprietors ; (ii) managerial and clerical staff including salaried managers and working directors ; (iii) chemists, draftsmen and other laboratory and research staff ; (iv) foremen and overseers ; (v) skilled and unskilled workers ; (vi) carters (excluding delivery only), messengers and persons working regularly at home.

Prior to the year 1928–29 average employment in factories was computed by dividing the sum of the number employed each week by the number of weeks worked. The figures therefore, represented the average number employed over the period worked, which, for many factories, was less than a full year. Commencing with the year 1928–29 the figure represents the equivalent average number employed over a full year of fifty-two weeks. The classification of factories according to the number of persons employed (*see* § 3 *ante*), however, is still based on the old method, but for all other purposes the average number engaged over the full year is used.

(ii) *Australia*, 1938–39 *to* 1949–50. Particulars of the number employed, the increase in employment and the rate per cent. of such increase are given for years 1938–39 to 1949–50 in the following table :—

FACTORIES : EMPLOYMENT, AUSTRALIA.

Year.	Males.			Females.			Persons.		
	Number Employed.	Increase on Previous Year.		Number Employed.	Increase on Previous Year.		Number Employed.	Increase on Previous Year.	
		Number.	Per cent.		Number.	Per cent.		Number.	Per cent.
1938–39 ..	412,591	3,989	0.98	152,515	1,957	1.30	565,106	5,946	1.06
1941–42 ..	524,383	51,325	10.85	200,959	23,944	13.53	725,342	75,269	11.58
1942–43 ..	535,570	11,187	2.13	223,475	22,516	11.20	759,045	33,703	4.65
1943–44 ..	539,141	3,571	0.67	227,365	3,890	1.74	766,506	7,461	0.98
1944–45 ..	535,893	−3,248	−0.60	214,686	−12,679	−5.58	750,579	−15,927	−2.08
1945–46 ..	548,888	12,995	2.42	196,370	−18,316	−8.53	745,258	−5,321	−0.71
1946–47 ..	604,300	55,412	10.10	200,629	4,259	2.17	804,929	59,671	8.01
1947–48 ..	640,925	36,625	6.06	207,951	7,322	3.65	848,876	43,947	5.46
1948–49 ..	670,076	29,151	4.55	220,156	12,205	5.87	890,232	41,356	4.87
1949–50 ..	689,508	19,432	2.90	228,153	7,997	3.63	917,661	27,429	3.08

NOTE.—Minus sign (−) indicates decrease.

(iii) *States*, 1938–39 *and* 1945–46 *to* 1949–50. The following table shows, for each of the years 1938–39 and 1945–46 to 1949–50 (*a*) the average number of persons employed in manufacturing industries in each State ; (*b*) for each State, the percentage of the total number employed in Australia ; and (*c*) the number employed per ten thousand of the mean population in each State and Australia.

FACTORIES : EMPLOYMENT.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
AVERAGE NUMBER EMPLOYED DURING FULL YEAR (52 WEEKS).							
1938–39 ..	228,781	201,831	54,110	43,371	23,211	13,802	565,106
1945–46 ..	310,870	256,249	65,460	63,188	30,256	19,235	745,258
1946–47 ..	343,119	265,757	71,599	70,711	33,806	19,937	804,929
1947–48 ..	363,365	278,271	76,754	73,346	35,967	21,173	848,876
1948–49 ..	378,380	292,006	82,945	75,945	38,354	22,602	890,232
1949–50 ..	382,385	303,476	88,963	78,598	40,733	23,506	917,661
PERCENTAGE OF AUSTRALIAN TOTAL.							
1938–39 ..	40.48	35.72	9.58	7.67	4.11	2.44	100
1945–46 ..	41.72	34.38	8.78	8.48	4.06	2.58	100
1946–47 ..	42.63	33.01	8.90	8.78	4.20	2.48	100
1947–48 ..	42.81	32.78	9.04	8.64	4.24	2.49	100
1948–49 ..	42.50	32.80	9.32	8.53	4.31	2.54	100
1949–50 ..	41.67	33.07	9.69	8.57	4.44	2.56	100

FACTORIES : EMPLOYMENT—*continued.*

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
PER 10,000 OF POPULATION.							
1938–39 ..	836	1,078	537	729	497	581	815
1945–46 ..	1,060	1,272	604	1,002	617	769	1,003
1946–47 ..	1,158	1,303	653	1,104	680	783	1,070
1947–48 ..	1,209	1,345	690	1,124	707	809	1,111
1948–49 ..	1,235	1,382	731	1,142	734	843	1,141
1949–50 ..	1,206	1,398	765	1,144	746	847	1,140

2. **Rates of Increase, 1938–39 and 1945–46 to 1949–50.**—The percentage increase on the average number of persons employed in the preceding year is shown below for each State for 1938–39 and 1945–46 to 1949–50.

FACTORIES : ANNUAL PERCENTAGE INCREASE OF PERSONS EMPLOYED.

Year.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
1938–39	1.74	0.02	3.82	−1.62	0.34	4.80	1.06
1945–46	−1.21	−0.54	2.07	−3.49	3.81	−1.41	−0.71
1946–47	10.37	3.71	9.38	11.91	11.73	3.65	8.01
1947–48	5.90	4.71	7.20	3.73	6.39	6.20	5.46
1948–49	4.13	4.94	8.07	3.54	6.64	6.75	4.87
1949–50	1.06	3.93	7.26	3.49	6.20	4.00	3.08

NOTE.—Minus sign (−) indicates decrease.

3. **Persons Employed in Classes of Industry.**—(i) *Australia.* The following table shows the average number of persons employed in factories in each industrial group in Australia for the years 1938–39 and 1945–46 to 1949–50.

FACTORIES : PERSONS EMPLOYED IN INDUSTRIAL CLASSES, AUSTRALIA.

Class of Industry.	1938–39.	1945–46.	1946–47.	1947–48.	1948–49.	1949–50.
I. Treatment of Non-metalliferous Mine and Quarry Products	10,343	9,929	12,673	14,263	15,572	16,598
II. Bricks, Pottery, Glass, etc.	15,709	13,466	16,535	17,536	18,702	19,241
III. Chemicals, Dyes, Explosives, Paints Oils and Grease	19,816	31,471	31,252	31,808	33,355	34,525
IV. Industrial Metals, Machines, Conveyances	177,677	292,477	300,921	320,948	333,313	344,313
V. Precious Metals, Jewellery and Plate ..	3,726	3,240	4,921	6,069	6,414	6,638
VI. Textiles and Textile Goods (not Dress)	46,082	55,008	59,810	61,911	64,855	65,528
VII. Skins and Leather (not Clothing or Footwear)	10,767	14,492	16,080	15,624	15,902	16,277
VIII. Clothing (except Knitted)	86,092	93,370	106,894	111,693	118,133	118,757
IX. Food, Drink and Tobacco	83,846	105,878	109,840	113,595	118,259	122,783
X. Woodworking and Basketware ..	30,739	38,346	43,457	47,052	51,206	53,169
XI. Furniture of Wood, Bedding, etc. ..	15,287	13,107	16,579	18,546	20,024	21,021
XII. Paper, Stationery, Printing, Bookbinding, etc.	39,913	39,905	46,651	47,813	50,571	53,002
XIII. Rubber	7,502	8,699	10,173	10,753	11,808	12,382
XIV. Musical Instruments	451	459	788	887	1,250	1,456
XV. Miscellaneous Products	7,727	14,838	17,059	18,235	18,123	18,561
Total, Classes I. to XV. ..	555,677	734,685	793,633	836,733	877,487	904,251
XVI. Heat, Light and Power	9,429	10,573	11,296	12,143	12,745	13,410
Grand Total	565,106	745,258	804,929	848,876	890,232	917,661

Following the outbreak of war in the Pacific in 1941, the transfer of man-power to the more essential industries became apparent, and industries not directly concerned with Australia's war effort showed a marked decline. The industries which declined were those in Class I., Mine and Quarry Products ; Class II., Bricks, Pottery, Glass, etc. ; Class V., Precious Metals ; Class VIII., Clothing ; Class XI., Furniture ; and Class XII., Paper, etc., while industries where the war-time expansion in employment occurred were those in Class III., Chemicals, etc.; Class IV., Metals, etc.; Class VI., Textiles; Class VII., Skins and Leather; and Class IX., Food.

Following some downward movement from war-time levels of employment which occurred in Class III., Chemicals, etc.; Class IV., Metals, etc.; and Class VI., Textiles in 1945–46, there was a general upward trend in 1946–47, and this continued in respect of each class of industry in each successive year.

(ii) *States.* Particulars of the numbers employed in each industrial class are shown in the following table for each State :—

FACTORIES : PERSONS EMPLOYED IN INDUSTRIAL CLASSES, 1949–50.

Class of Industry.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Aust.
I. Treatment of Non-metalliferous Mine and Quarry Products	6,763	4,998	1,508	1,368	1,267	694	16,598
II. Bricks, Pottery, Glass, etc. ..	10,504	4,621	1,008	1,791	1,079	238	19,241
III. Chemicals, Dyes, Explosives, Paints, Oils and Grease ..	16,316	11,590	1,357	3,427	1,530	305	34,525
IV. Industrial Metals, Machines, Conveyances	157,987	98,852	28,724	37,427	14,418	6,905	344,313
V. Precious Metals, Jewellery and Plate . ..	2,212	3,499	327	346	225	29	6,638
VI. Textiles and Textile Goods (not Dress)	23,428	34,264	1,885	2,539	756	2,656	65,528
VII. Skins and Leather (not Clothing or Footwear) ..	6,418	5,777	1,421	1,469	737	455	16,277
VIII. Clothing (except Knitted) ..	48,063	48,133	9,409	7,258	4,897	997	118,757
IX. Food, Drink and Tobacco ..	39,979	38,555	22,832	10,791	6,204	4,422	122,783
X. Woodworking and Basketware	18,678	13,364	9,996	3,702	4,241	3,188	53,169
XI. Furniture of Wood, Bedding, etc.	8,004	5,907	3,103	1,939	1,395	673	21,021
XII. Paper, Stationery, Printing, Bookbinding, etc. ..	23,081	17,439	4,504	3,371	2,187	2,420	53,002
XIII. Rubber	5,915	4,758	883	585	127	114	12,382
XIV. Musical Instruments ..	1,155	185	37	56	23	..	1,456
XV. Miscellaneous Products ..	8,547	7,910	576	873	427	228	18,561
Total, Classes I. to XV.	377,050	299,852	87,570	76,942	39,513	23,324	904,251
XVI. Heat, Light and Power ..	5,335	3,624	1,393	1,656	1,220	182	13,410
Grand Total ..	382,385	303,476	88,963	78,598	40,733	23,506	917,661

4. **Persons Employed According to Occupational Status.**—(i) *General.* In the following table the average number of persons employed in each State during 1949–50 are classified according to their occupational status. As mentioned previously, persons employed in factories are now classified on a basis different from that adopted prior to 1945–46. The nature of this change is indicated in § 5 par. 1.

PERSONS EMPLOYED : OCCUPATIONAL STATUS, 1949–50.

State.	Average Number of Persons Employed.						
	Working Proprietors.	Managerial and Clerical Staff, etc.(*a*)	Chemists, Draftsmen, etc.	Foremen and Overseers.	Workers in Factory (Skilled and Unskilled).	Carters (excluding Delivery only) and Messengers, etc. (*b*)	Total.
New South Wales ..	13,064	39,254	4,644	15,142	307,716	2,565	382,385
Victoria	11,456	29,469	3,462	12,615	244,052	2,422	303,476
Queensland ..	3,936	7,742	635	2,943	73,021	686	88,963
South Australia ..	2,121	8,313	1,109	3,091	63,596	368	78,598
Western Australia ..	2,224	2,925	295	1,460	33,695	134	40,733
Tasmania ..	984	2,120	307	967	19,014	114	23,506
Australia ..	33,785	89,823	10,452	36,218	741,094	6,289	917,661

(*a*) Includes salaried managers and working directors. (*b*) Includes persons working regularly at home.

(ii) *Outworkers.* The term "outworker" or "homeworker" has acquired a special meaning in connexion with manufacturing industries, and embraces only persons to whom work is given out by factories to be done at home. Owing to the amended employment groupings adopted in 1945–46 (*see* § 5. 1.) persons working regularly at home for factories are now included with carters, messengers and others and separate details are no longer available. The number of "outworkers" employed by factories in 1944–45 was 1,049.

5. **Monthly Employment, 1938–39, 1945–46 and 1947–48 to 1949–50.**—The following table shows the number of persons (excluding working proprietors) employed in factories on the pay-day nearest to the 15th of each month for years up to 1949–50.

FACTORIES : MONTHLY EMPLOYMENT, AUSTRALIA.

(EXCLUDING WORKING PROPRIETORS.)

Month.	1938–39.	1945–46.	1947–48.	1948–49.	1949–50.
			MALES.		
July	387,693	518,734	602,188	627,384	584,355
August	389,979	519,122	606,142	628,814	622,254
September	391,576	511,909	608,934	629,426	647,097
October	393,977	505,753	608,651	629,671	652,632
November	395,192	503,296	608,531	632,557	655,266
December	394,438	489,040	608,135	631,782	655,475
January	385,742	513,396	608,046	632,979	658,251
February	392,056	533,761	609,111	637,181	664,716
March	395,146	543,347	610,476	641,432	669,505
April	391,005	547,253	619,963	640,693	669,558
May	393,609	553,980	622,665	644,806	674,432
June	390,973	558,428	625,019	646,383	677,682
			FEMALES.		
July	147,282	204,705	200,857	209,489	195,017
August	149,294	204,150	201,697	210,574	211,520
September	151,159	199,331	203,009	212,656	219,868
October	152,473	193,587	204,329	214,062	222,681
November	152,806	191,689	204,931	215,239	225,064
December	151,165	183,899	203,568	214,158	223,895
January	141,853	184,810	200,980	211,131	223,214
February	151,883	188,632	205,741	215,994	228,233
March	154,854	192,699	208,250	218,429	231,239
April	152,614	192,084	208,488	218,007	230,355
May	150,693	192,215	207,385	218,705	231,346
June	148,601	192,137	208,041	219,652	231,207
			PERSONS.		
July	534,975	723,439	803,045	836,873	779,372
August	539,273	723,272	807,839	839,388	833,774
September	542,735	711,240	811,943	842,082	866,965
October	546,450	699,340	812,980	843,733	875,313
November	547,998	694,985	813,462	847,796	880,330
December	545,603	672,939	811,703	845,940	879,370
January	527,595	698,206	809,026	844,110	881,465
February	543,939	722,393	814,852	853,175	892,949
March	550,000	736,046	818,726	859,861	900,744
April	543,619	739,337	828,451	858,700	899,913
May	544,302	746,195	830,050	863,511	905,778
June	539,574	750,565	833,060	866,035	908,889

6. **Distribution of Employees According to Age.**—(i) *States.* The extension of statistics of employment in factories, decided upon at the Conference of Australian Statisticians held in 1945, permits of a distribution of employees (excluding working proprietors) into seven age-groups from 1945–46 onwards, instead of three as in previous years. The particulars are collected as at June. The numbers employed in each age-group in June, 1950 are given below :—

FACTORIES : DISTRIBUTION OF EMPLOYEES ACCORDING TO AGE, JUNE, 1950.

(EXCLUDING WORKING PROPRIETORS.)

Age Groups.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Aust.
				MALES.			
Under 16 years ..	2,088	2,670	1,495	724	716	119	7,812
16 years	4,211	2,910	1,414	863	800	325	10,523
17 ,, ...	5,156	3,254	1,559	1,020	901	356	12,246
18 ,, ...	5,715	3,509	1,617	1,045	832	424	13,142
19 ,, ...	5,938	3,575	1,599	1,060	765	424	13,361
20 ,, ...	6,263	3,865	1,530	1,144	813	429	14,044
21 ,, and over ..	252,500	188,788	62,832	58,072	28,074	16,288	606,554
Total ..	281,871	208,571	72,046	63,928	32,901	18,365	677,682
				FEMALES.			
Under 16 years ..	1,584	2,181	1,140	716	362	72	6,055
16 years	3,143	2,556	949	603	531	178	7,960
17 ,, ...	3,892	2,950	972	686	526	251	9,277
18 ,, ...	4,675	3,200	934	729	579	292	10,409
19 ,, ...	4,754	3,254	971	700	545	272	10,496
20 ,, ...	4,607	3,133	844	615	451	229	9,879
21 ,, and over ..	77,175	70,597	10,525	11,358	4,170	3,306	177,131
Total ..	99,830	87,871	16,335	15,407	7,164	4,600	231,207
				PERSONS.			
Under 16 years ..	3,672	4,851	2,635	1,440	1,078	191	13,867
16 years	7,354	5,466	2,363	1,466	1,331	503	18,483
17 ,, ...	9,048	6,204	2,531	1,706	1,427	607	21,523
18 ,, ...	10,390	6,709	2,551	1,774	1,411	716	23,551
19 ,, ...	10,692	6,829	2,570	1,760	1,310	696	23,857
20 ,, ...	10,870	6,998	2,374	1,759	1,264	658	23,923
21 ,, and over ..	329,675	259,385	73,357	69,430	32,244	19,594	783,685
Total ..	381,701	296,442	88,381	79,335	40,065	22,965	908,889

(ii) *Australia.* As comparative details based on the new age grouping are not available for the years prior to 1945–46, the following table shows the age distribution in sexes for Australia in June, 1939 and 1946 to 1950 on the old basis.

FACTORIES : DISTRIBUTION OF EMPLOYEES ACCORDING TO AGE, AUSTRALIA.

(EXCLUDING WORKING PROPRIETORS.)

In June—	Under 16 Years.		16 and under 21 Years.		21 Years and over.		Total.	
	No.	Per Cent.	No.	Per Cent.	No.	Per Cent.	No.	Per. Cent.
MALES.								
1939 ..	16,109	4.12	76,418	19.55	298,446	76.33	390,973	100
1946 ..	9,016	1.61	69,413	12.43	479,999	85.96	558,428	100
1947 ..	7,998	1.35	71,194	12.00	514,010	86.65	593,202	100
1948 ..	7,734	1.24	68,818	11.01	548,467	87.75	625,019	100
1949 ..	7,791	1.20	66,035	10.22	572,557	88.58	646,383	100
1950 ..	7,812	1.15	63,316	9.34	606,554	89.51	677,682	100
FEMALES.								
1939 ..	15,497	10.43	56,273	37.87	76,831	51.70	148,601	100
1946 ..	7,881	4.10	53,018	27.59	131,238	68.31	192,137	100
1947 ..	7,401	3.70	52,805	26.42	139,687	69.88	199,893	100
1948 ..	6,549	3.15	52,201	25.09	149,291	71.76	208,041	100
1949 ..	6,326	2.88	51,562	23.47	161,764	73.65	219,652	100
1950 ..	6,055	2.62	48,021	20.77	177,131	76.61	231,207	100
PERSONS.								
1939 ..	31,606	5.86	132,691	24.59	375,277	69.55	539,574	100
1946 ..	16,897	2.25	122,431	16.31	611,237	81.44	750,565	100
1947 ..	15,399	1.94	123,999	15.64	653,697	82.42	793.095	100
1948 ..	14,283	1.71	121,019	14.53	697,758	83.76	833,060	100
1949 ..	14,117	1.63	117,597	13.58	734,321	84.79	866,035	100
1950 ..	13,867	1.53	111,337	12.25	783,685	86.22	908,889	100

§ 6. Sex Distribution in Factories.

1. **Distribution According to Sex of Persons Employed.**—(i) *General.* In New South Wales the ratio of the number of females engaged in factories to the number of males during 1886 was about one to seven; in 1891 one to six; in 1903 it became about one to four; and in 1949–50 was one to three. In Victoria the ratio of females to males during the year 1886 was about one to five. Five years later (1891) it was somewhat less, but in 1896 had increased to about one to three, and in 1949–50 was about two to five, For Australia as a whole the ratio of females employed in factories was highest in 1943–44 at about two females to five males but by 1949–50 the ratio had declined to the level of one female to three males.

(ii) *Average Number of Males and Females Employed.* The following table shows the average number of males and females employed in factories in each State for 1938–39 and the five years 1945–46 to 1949–50 :—

FACTORIES : MALES AND FEMALES EMPLOYED.

State.	1938–39.	1945–46.	1946–47.	1947–48.	1948–49.	1949–50.
MALES.						
New South Wales ..	167,172	227,454	255,733	272,600	282,312	284,055
Victoria	136,218	178,951	188,758	199,003	208,184	216,198
Queensland	43,941	53,587	59,309	63,526	68.385	72,948
South Australia ..	35,406	49,523	56,739	59,071	61,005	63,294
Western Australia ..	18,704	24,268	27,575	29,517	31,682	33,711
Tasmania	11,150	15,105	16,186	17.208	18,508	19,302
Australia ..	412,591	548,888	604,300	640,925	670,070	689,508
FEMALES.						
New South Wales ..	61,609	83,416	87,386	90,765	96,068	98,330
Victoria	65,613	77,298	76,999	79,268	83,822	87.278
Queensland	10,169	11,873	12,290	13,228	14,560	16,015
South Australia ..	7,965	13,665	13,972	14,275	14,940	15,304
Western Australia ..	4,507	5,988	6,231	6,450	6,672	7,022
Tasmania	2,652	4,130	3,751	3,965	4,094	4,204
Australia ..	152,515	196,370	200,629	207,951	220.156	228.153

2. **Rate of Variation for each Sex.**—The percentages of increase or decrease on the average numbers of males and females employed in the preceding year are shown below for the years 1938–39 and 1945–46 to 1949–50 :—

ANNUAL PERCENTAGE INCREASES OF MALES AND FEMALES EMPLOYED.

State.	1938–39.	1945–46.	1946–47.	1947–48.	1948–49.	1949–50.
			MALES.			
New South Wales ..	1.69	1.65	12.43	6.60	3.56	6.17
Victoria	0.04	2.60	5.48	5.43	4.61	3.85
Queensland.. ..	3.79	4.09	10.68	7.11	7.65	6.67
South Australia ..	—2.39	0.95	14.57	4.11	3.27	3.75
Western Australia ..	—0.30	8.32	13.63	7.04	7.33	6.40
Tasmania	4.40	2.37	7.16	6.31	7.55	4.29
Total ..	0.98	2.42	10.10	6.06	4.55	2.90
			FEMALES.			
New South Wales ..	1.88	— 8.24	4.76	3.87	5.84	2.35
Victoria	—0.03	— 7.11	—0.39	2.95	5.75	4.12
Queensland.. ..	3.96	— 6.16	3.51	7.63	10.07	9.99
South Australia ..	1.98	—16.76	2.25	2.17	4.66	2.44
Western Australia ..	3.06	—11.18	4.06	3.51	3.44	5.25
Tasmania	6.51	—13.14	—9.18	5.71	3.25	2.72
Total ..	1.30	— 8.53	2.17	3.65	5.87	3.63

NOTE.—The minus sign (—) indicates decrease.

3. **Masculinity of Persons Employed in Factories.**—The extent to which females are employed in the factories of Australia may perhaps be more clearly shown by giving the masculinity of persons employed in each State. The following table shows particulars for the years 1938–39 and 1945–46 to 1949–50 :—

FACTORIES : MASCULINITY(*a*) OF PERSONS EMPLOYED.

Year.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
1938–39	271	208	432	445	415	420	271
1945–46	273	232	451	362	405	366	280
1946–47	293	245	483	406	443	432	301
1947–48	300	251	480	414	458	434	308
1948–49	294	248	470	408	475	452	304
1949–50	289	248	455	414	480	459	302

(*a*) Number of males per 100 females.

For a number of years prior to 1926–27 there were on the average 300 males employed in factories for every 100 females, but in that year the proportion of males began to fall with the increasing activity in the clothing and textile industries, in which the number of females to males is relatively high. As these trades were not so seriously affected by the depression as the heavier industries, the proportion of males continued to fall, until in 1932–33 there were only 239 males employed to every 100 females. With the recovery of employment in the heavier industries subsequent to that year, the proportion of males per 100 females had increased to 271 in 1937–38 and 1938–39.

The decrease in masculinity from 1938–39 to 1943–44 resulted from the enlistment of men in the armed services and the expansion of industry caused by the war. In many industries the younger men were released for service in the defence forces and large numbers of women were absorbed as an adjustment to the industrial effort of Australia. Following the cessation of hostilities in 1945 and the return of servicemen to civilian life, the number of females employed in factories declined and masculinity increased. In 1949–50 there were 302 males per 100 females employed in factories, compared with 271 in 1938–39.

4. **Employment of Females in Particular Industries.**—(i) *General.* The greater number of females in manufacturing industries are employed in four classes, namely :—IV., Industrial Metals, Machines, etc. ; VI., Textiles ; VIII., Clothing ; and IX., Food, Drink and Tobacco. In 1949–50 these industries accounted for 80.63 per cent. of all females in factories. In two classes only did the number of females exceed the number of males, namely, in Class VI., Textiles, where there were 118 females to every 100 males and in Class VIII., Clothing, with 246 females per 100 males. The following tables show the average number of males and females employed in each of these classes in 1949–50 :—

MALES AND FEMALES EMPLOYED IN PARTICULAR INDUSTRIES, 1949-50.

Class.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Aust.
			MALES.				
IV. Industrial Metals, etc.	141,634	83,669	27,350	33,960	13,808	6,586	312,007
VI. Textiles and Textile Goods (not Dress)	10,460	15,721	748	1,387	395	1,323	30,034
VIII. Clothing (except Knitted) ..	13,179	14,655	2,499	2,118	1,493	367	34,311
IX. Food, Drink and Tobacco ..	27,675	27,991	19,376	8,061	4,800	3,172	91,075
All Other Classes	91,107	69,162	22,975	17,768	13,215	7,854	222,081
Total	284,055	216,198	72,948	63,294	33,711	19,302	689,508
			FEMALES.				
IV. Industrial Metals, etc. ..	16,353	10,183	1,374	3,467	610	319	32,306
VI. Textiles and Textile Goods (not Dress)	12,968	18,543	1,137	1,152	361	1,333	35,494
VIII. Clothing (except knitted) ..	34,884	33,478	6,910	5,140	3,404	630	84,446
IX. Food, Drink and Tobacco ..	12,304	10,564	3,456	2,730	1,404	1,250	31,708
All Other Classes	21,821	14,510	3,138	2,815	1,243	672	44,199
Total	98,330	87,278	16,015	15,304	7,022	4,204	228,153

(ii) *Females Employed in Clothing Manufacture.* The employment of females in the several industries of Class VIII., Clothing—in which class the largest number of females is employed—and the relation of their number to that of the males so employed are shown in the following table :—

FEMALES EMPLOYED IN CLOTHING INDUSTRIES, 1949–50.

Industry.	New South Wales.			Victoria.			Other States.		
	Males.	Females.	Femininity. (a)	Males.	Females.	Femininity. (a)	Males.	Females.	Femininity. (a)
Tailoring and Ready-made Clothing ..	3,383	15,577	460	3,141	7,501	239	1,895	5,753	304
Waterproof and Oilskin Clothing ..	99	549	555	119	372	313	16	108	675
Dressmaking, Hemstitching ..	177	2,536	1,433	1,496	10,675	714	202	3,813	1,888
Millinery	221	1,426	645	217	975	449	43	603	1,402
Shirts, Collars and Underclothing ..	622	4,756	765	580	4,277	737	185	2,125	1,149
Foundation Garments	127	1,527	1,202	186	1,020	548	24	202	842
Handkerchiefs, Ties and Scarves ..	147	821	559	82	441	538	3	2	67
Hats and Caps ..	664	636	96	445	291	65	29	138	476
Gloves	106	331	312	110	413	375	36	149	414
Boots and Shoes ..	3,788	3,991	105	5,645	5,684	101	2,181	1,821	83
Boot and Shoe Repairing ..	1,413	85	6	705	30	4	720	36	5
Boot and Shoe Accessories ..	230	242	105	251	260	104	24	2	8
Umbrellas and Walking Sticks ..	44	90	205	22	52	236	24	55	229
Dyeworks and Cleaning (including Renovating and Repairing) ..	2,105	2,012	96	1,592	1,283	81	1,095	1,277	117
Other	53	305	575	64	204	319	..	..	..
Total ..	13,179	34,884	265	14,655	33,478	228	6,477	16,084	248

(a) Number of females per 100 males.

§ 7. Child Labour in Factories.

1. **Conditions of Child Labour.**—The employment of young persons in factories in the States is regulated by Acts of Parliament, as is the case with the employment of female labour. The object of the restrictions imposed is to ensure, amongst other things, that a proper period shall be devoted to primary education, and that the early years of labour shall not exhaust the worker before the attainment of full growth.

2. **Number of Children Employed, 1939 and 1946 to 1950.**—In the returns for the various States, the term "child" denotes any person under sixteen years of age. The decline in the number of children employed from the peak of 33,553 reached in June, 1940 to 13,867 in June, 1950, which is most marked in all States excepting Western Australia, was probably caused by several factors, including (i) the raising of the school leaving age in New South Wales and Tasmania, (ii) fewer children available for employment owing to the decline in the birth rate which occurred about 1929, and (iii) the high level of employment which enabled parents to keep their children at school beyond the statutory leaving age.

The following table shows the number of children of each sex employed in manufacturing industries in June of the years 1939 and 1946 to 1950.

FACTORIES: CHILDREN EMPLOYED, JUNE.

State.	1939.	1946.	1947.	1948.	1949.	1950.
			MALES.			
New South Wales ..	5,759	2,451	2,186	2,125	2,115	2,088
Victoria	6,167	3,449	2,929	2,743	2,806	2,670
Queensland	1,790	1,237	1,236	1,265	1,336	1,495
South Australia	1,296	829	788	732	722	724
Western Australia ..	705	739	673	704	665	716
Tasmania	392	311	186	165	147	119
Australia	16,109	9,016	7,998	7,734	7,791	7,812
			FEMALES.			
New South Wales ..	7,084	2,265	2,094	1,831	1,736	1,584
Victoria	5,005	3,007	2,810	2,564	2,354	2,181
Queensland	1,334	1,020	998	955	1,068	1,140
South Australia	1,053	885	884	722	683	716
Western Australia ..	521	478	454	357	390	362
Tasmania	500	226	161	120	95	72
Australia	15,497	7,881	7,401	6,549	6,326	6,055
			TOTAL.			
New South Wales ..	12,843	4,716	4,280	3,956	3,851	3,672
Victoria	11,172	6,456	5,739	5,307	5,160	4,851
Queensland	3,124	2,257	2,234	2,220	2,404	2,635
South Australia	2,349	1,714	1,672	1,454	1,405	1,440
Western Australia ..	1,226	1,217	1,127	1,061	1,055	1,078
Tasmania	892	537	347	285	242	191
Australia	31,606	16,897	15,399	14,283	14,117	13,867

3. **Proportion of Children Employed to Total Employees.**—The following table shows the proportion of children to total employees (excluding working proprietors) employed in factories in the various States in June of each of the six years 1939 and 1946 to 1950. In 1950 the proportion was highest in Queensland and lowest in Tasmania.

PROPORTION OF CHILDREN EMPLOYED TO TOTAL EMPLOYEES, JUNE.
(Per cent.)
(EXCLUDING WORKING PROPRIETORS.)

State.	1939.	1946.	1947.	1948.	1949.	1950.
New South Wales ..	5.85	1.48	1.26	1.11	1.06	0.96
Victoria..	5.81	2.53	2.20	1.95	1.82	1.64
Queensland	6.01	3.63	3.14	2.88	2.91	2.98
South Australia	5.78	2.64	2.41	2.01	1.87	1.82
Western Australia ..	5.61	3.99	3.40	3.04	2.85	2.69
Tasmania	6.78	2.77	1.75	1.35	1.08	0.83
Australia	5.86	2.25	1.94	1.71	1.63	1.53

4. **Industries Employing Child Labour.**—The distribution of children employed in factories in June, 1950, and the proportion of children employed to total employees is given in the following table according to the class of industry :—

FACTORIES: CHILDREN EMPLOYED, BY CLASSES, JUNE, 1950.

Class of Industry.	Children Employed.		Total Employees. (a)		Proportion of Children Employed to Total Employees. (a)	
	Males.	Females.	Males.	Females.	Males.	Females.
					%	%
I. Treatment of Non-metalliferous Mine and Quarry Products..	126	7	16,043	605	0.79	1.16
II. Bricks, Pottery, Glass, etc. ..	99	20	18,300	1,516	0.54	1.32
III. Chemicals, Dyes, Explosives, Paints, Oils and Grease ..	151	139	26,623	8,633	0.56	1.61
IV. Industrial Metals, Machines. Conveyances	3,329	541	316,260	34,922	1.05	1.55
V. Precious Metals, Jewellery and Plate	98	39	5,003	1,136	1.96	3.43
VI. Textiles and Textile Goods (not Dress)	540	993	29,690	36,654	1.82	2.71
VII. Skins and Leather (not Clothing or Footwear)	108	57	12,201	3,964	0.89	1.44
VIII. Clothing (except Knitted) ..	457	2,988	29,422	84,030	1.55	3.56
IX. Food, Drink and Tobacco ..	856	568	85,410	30,378	1.00	1.87
X. Woodworking and Basketware	567	54	47,587	2,085	1.19	2.59
XI. Furniture of Wood, Bedding, etc.	585	72	16,845	3,189	3.47	2.26
XII. Paper, Stationery, Printing, Bookbinding, etc.	651	385	37,945	14,332	1.72	2.69
XIII. Rubber	50	22	10,149	2,808	0.49	0.78
XIV. Musical Instruments ..	30	7	1,152	395	2.60	1.77
XV. Miscellaneous Products ..	145	161	11,616	6,458	1.25	2.49
Total, Classes I. to XV.	7,792	6,053	664,246	231,105	1.17	2.62
XVI. Heat, Light and Power.. ..	20	2	13,436	102	0.15	1.96
Grand Total	7,812	6,055	677,682	231,207	1.15	2.62

(a) Excludes working proprietors.

5. **Apprenticeship.**—In all the States, acts are in force for the regulation of the age at which children may be employed in gainful occupations. Legislative provision is also made for the regulation of apprenticeship under the various State Factories Acts or Arbitration Acts. These acts, while laying down general principles, leave to the wages tribunals the actual determination of the conditions under which apprentices may be employed.

§ 8. Salaries and Wages Paid and Value of Production.

Note.—In all tables relating to salaries and wages paid in factories the amounts drawn by working proprietors are excluded.

1. **General.**—The importance of the manufacturing industries of Australia is indicated by the fact that the total value of the output for 1949–50 was £1,645,411,497, of which amount £929,094,287 represented the value of the materials used, including containers, etc., tools replaced and repairs to plant and buildings, and £54,829,516 the value of the power, fuel and light used. The difference between the sum of the last two amounts and the value of the output, namely £661,487,694, represents the value of production as defined by the Conference of Statisticians at Sydney in 1925, i.e. "the value of consumable commodities produced during the year, deducting, so far as possible, the value of goods consumed in process of production." The total amount of salaries and wages paid in factories in 1949–50 was £385,895,806. This figure, which excludes amounts drawn by working proprietors, was the highest ever recorded and shows an increase of £46,608,646 or 13.74 per cent. on that for the previous year.

2. **Salaries and Wages Paid.**—(i) *In Classes of Industry*, 1949–50. The amounts of salaries and wages paid in the various classes of industry in each State are shown in the following table :—

FACTORIES : SALARIES AND WAGES PAID, 1949–50.

(£.)

Class of Industry.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
I. Treatment of Non-metalliferous Mine and Quarry Products	3,292,038	2,268,181	669,912	623,975	504,617	289,937	7,648,660
II. Bricks, Pottery, Glass, etc.	4,719,548	2,078,446	407,043	789,918	441,663	103,144	8,539,762
III. Chemicals, Dyes, Explosives, Paints, Oils and Grease ..	7,430,820	5,579,241	567,100	1,543,094	699,352	157,614	15,977,221
IV. Industrial Metals, Machines, Conveyances	73,199,738	46,362,904	11,811,503	17,506,333	5,643,427	3,092,213	157,616,118
V. Precious Metals, Jewellery and Plate	834,565	1,540,756	99,612	128,451	79,268	8,713	2,691,365
VI. Textiles and Textile Goods (not Dress)	8,595,682	13,126,177	578,969	1,008,217	247,588	1,016,817	24,573,450
VII. Skins and Leather (not Clothing or Footwear)	2,790,376	2,652,887	589,946	700,464	306,632	235,991	7,276,296
VIII. Clothing (except Knitted)	14,633,252	16,100,274	2,495,102	2,043,042	1,258,228	283,033	36,812,931
IX. Food, Drink and Tobacco ..	16,243,937	17,033,536	9,804,429	4,336,633	2,456,861	1,673,421	51,548,817
X. Woodworking and Basketware ..	7,276,623	5,531,320	3,676,897	1,527,116	1,538,775	1,158,580	20,709,311
XI. Furniture of Wood, Bedding, etc. ..	3,081,782	2,182,019	1,019,030	709,373	466,861	215,212	7,674,277
XII. Paper, Stationery, Printing, Bookbinding, etc. ..	10,219,602	7,860,467	1,792,187	1,409,298	849,716	1,196,894	23,328,164
XIII. Rubber	3,043,099	2,477,625	335,858	237,903	49,260	40,986	6,184,731
XIV. Musical Instruments	425,752	80,203	12,476	18,452	5,656	..	542,539
XV. Miscellaneous Products	3,376,145	3,221,052	171,698	311,310	121,696	77,074	7,278,975
Total, Classes I. to XV.	159,162,959	128095088	34,031,762	32,893,579	14,669,600	9,549,629	378,402,617
XVI. Heat, Light and Power	2,984,135	2,159,606	716,027	913,150	623,641	96,630	7,493,189
Grand Total ..	162,147,094	130254694	34,747,789	33,806,729	15,293,241	9,646,259	385,895,806

(ii) *Totals and Averages*, 1938–39 *and* 1945–46 *to* 1949–50. The following statement shows the total amount of salaries and wages paid, and the average amount paid per employee in each State, for each of the years indicated. The average wage paid is not comparable with that shown in similar tables in issues of the Official Year Book prior to No. 23, 1930, on account of the change in the method of computing the average number of hands employed, as explained earlier. The figures exclude working proprietors and the amounts drawn by them :—

FACTORIES : TOTAL AND AVERAGE SALARIES AND WAGES PAID.

(£.)

Year.	Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W.Aust.	Tas.	Australia.
1938–39	Total amount paid . .	44,606,497	36,026,542	10,887,229	8,169,350	4,573,558	2,479,886	106,743,062
	Average per employee	201.77	185.64	210.78	195.57	207.90	188.31	196.31
1945–46	Total amount paid . .	87,647,460	70,499 214	18,011,966	16,769,768	7,883,814	5,006,511	205,818,733
	Average per employee	290.75	284.09	285.00	272.71	273.01	269.85	285.17
1946–47	Total amount paid . .	103,587,559	77,993,765	20,310,541	20,538,958	9,105,010	5,637,933	237,173,766
	Average per employee	312.12	303.82	295.51	298.72	284.35	294.39	305.12
1947–48	Total amount paid . .	125,345,878	93,802,188	24,163,216	24,852,998	10,735,647	6,865,337	285,765,264
	Average per employee	357.03	349.36	327.72	348.42	316.26	337.45	348.95
1948–49	Total amount paid . .	146,535,642	112410441	29,446,634	29,510,207	12,927,830	8,456,406	339,287,160
	Average per employee	401.06	399.86	371.11	399.22	357.18	389.57	395.60
1949–50	Total amount paid . .	162,147,094	130254694	34,747,789	33,806,729	15,293,241	9,646,259	385,895,806
	Average per employee	439.04	446.05	408.67	442.05	397.13	428.30	436.59

In comparing the figures in the preceding table, regard should be paid to the nature of certain industries which are carried on to a greater extent in some States than in others. In Victoria, for instance, there is a large number of hands employed in Class VIII., Clothing, comprising a relatively high percentage of women and children. The highest average wages per employee in 1949–50 were paid in Victoria, South Australia and New South Wales in that order.

The average earnings per employee rose annually from 1938–39 to 1943–44 when a record high level of £291 was attained as a result of war-time conditions. In 1944–45 the average dropped to £285 and remained at this level in 1945–46. From 1945–46 average earnings rose each year and in 1949–50 reached a new record level of over £436.

(iii) *Earnings of Males and Females*, 1949–50. The following table shows the amount of salaries and wages paid to males and females in each class of industry in each State during the year 1949–50 :—

SALARIES AND WAGES : MALE AND FEMALE FACTORY EMPLOYEES, 1949–50.

(£.)

Class of Industry.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
				MALES.			
I. Treatment of Non-metalliferous Mine and Quarry Products	3,227,836	2,217,884	655,269	611,413	496,752	286,596	7,495,750
II. Bricks, Pottery, Glass etc.	4,518,800	1,975,767	399,336	762,508	429,296	101,914	8,187,621
III. Chemicals, Dyes, Explosives, Paints, Oils and Grease . .	6,236,460	4,781,234	498,821	1,395,122	658,490	150,061	13,720,188
IV. Industrial Metals, Machines, Conveyances	68,663,695	43,309,368	11,477,682	16,548,704	5,503,136	3,013,385	148,515,970
V. Precious Metals, Jewellery and Plate	715,392	1,373,326	93,536	123,073	76,884	8,519	2,390,730
VI. Textiles and Textile Goods (not Dress)	5,065,632	7,809,906	312,110	660,241	160,353	612,499	14,620,741
VII. Skins and Leather (not Clothing or Footwear)	2,229,275	2,307,679	541,543	632,422	277,702	230,873	6,219,494
VIII. Clothing (except Knitted)	5,421,064	6,445,348	868,203	805,241	472,111	135,231	14,147,198
IX. Food, Drink and Tobacco . .	12,937,817	13,984,505	8,998,923	3,666,789	2,133,149	1,351,891	43,073,074
X. Woodworking and Basketware . .	7,070,591	5,381,288	3,583,673	1,480,434	1,529,869	1,145,273	20,191,128
XI. Furniture of Wood, Bedding, etc. . .	2,672,996	1,965,399	949,067	629,064	438,925	203,865	6,859,316
XII. Paper, Stationery, Printing, Bookbinding, etc. . .	8,460,671	6,694,710	1,456,508	1,194,638	741,993	1,100,093	19,648,613
XIII. Rubber	2,701,024	2,194,306	246,000	215,647	46,987	38,764	5,442,728
XIV. Musical Instruments	352,010	77,945	12,476	18,137	5,656	. .	466,224
XV. Miscellaneous Products	2,634,406	2,463,723	140,984	253,324	99,672	63,641	5,655,750
Total, Classes I. to XV	132,907,669	102982388	30,234,131	28,996,757	13070975	8,442,605	316,634,525
XVI. Heat, Light and Power	2,967,432	2,153,099	713,722	910,635	620,720	94,890	7,460,498
Grand Total . .	135,875,101	105135487	30,947,853	29,907,392	13691695	8,537,495	324,095,023

SALARIES AND WAGES: MALE AND FEMALE FACTORY EMPLOYEES, 1949–50—*continued.*

(£.)

Class of Industry.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
FEMALES.							
I. Treatment of Non-metalliferous Mine and Quarry Products	64,202	50,297	14,643	12,562	7,865	3,341	152,910
II. Bricks, Pottery, Glass, etc.	200,748	102,679	7,707	27,410	12,367	1,230	352,141
III. Chemicals, Dyes, Explosives, Paints, Oils and Grease ..	1,194,360	798,007	68,279	147,972	40,862	7,553	2,257,033
IV. Industrial Metals, Machines, Conveyances	4,536,043	3,053,536	333,821	957,629	140,291	78,828	9,100,148
V. Precious Metals, Jewellery and Plate	119,173	167,430	6,076	5,378	2,384	194	300,635
VI. Textiles and Textile Goods (not Dress)	3,530,050	5,316,271	266,859	347,976	87,235	404,318	9,952,709
VII. Skins and Leather (not Clothing or Footwear)	561,101	345,208	48,403	68,042	28,930	5,118	1,056,802
VIII. Clothing (except Knitted)	9,212,188	9,654,926	1,626,899	1,237,801	786,117	147,802	22,665,733
IX. Food, Drink and Tobacco ..	3,306,120	3,049,031	805,506	669,844	323,712	321,530	8,475,743
X. Woodworking and Basketware ..	206,032	150,032	93,224	46,682	8,906	13,307	518,183
XI. Furniture of Wood, Bedding, etc. ..	408,786	216,620	69,963	80,309	27,936	11,347	814,961
XII. Paper, Stationery, Printing, Bookbinding, etc. ..	1,758,931	1,165,757	335,679	214,660	107,723	96,801	3,679,551
XIII. Rubber	342,075	283,319	89,858	22,256	2,273	2,222	742,003
XIV. Musical Instruments	73,742	2,258	..	315	..	..	76,315
XV. Miscellaneous Products	741,739	757,329	30,714	57,986	22,024	13,433	1,623,225
Total, Classes I. to XV.	26,255,290	25,112,700	3,797,631	3,896,822	1,598,625	1,107,024	61,768,092
XVI. Heat, Light and Power	16,703	6,507	2,305	2,515	2,921	1,740	32,691
Total ..	26,271,993	25,119,207	3,799,936	3,899,337	1,601,546	1,108,764	61,800,783

(iv) *Total and Average Earnings of Males and Females,* 1938–39 *and* 1945–46 *to* 1949–50. Particulars for these years are given in the table hereunder :—

TOTAL AND AVERAGE SALARIES AND WAGES: MALES AND FEMALES.

Particulars.		N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
MALES.								
1938–39.	Amount paid £	38,271,867	29,005,746	9,920,001	7,487,828	4,128,824	2,234,413	91,048,679
	Proportion of total %	85.80	80.51	91.12	91.66	90.28	90.10	85.30
	Average per employee £	239.24	224.47	238.59	220.95	235.49	212.09	231.84
1945–46.	Amount paid £	73,380,046	56,772,773	16,177,606	14,654,533	7,037,530	4,353,562	172,376,050
	Proportion of total %	83.72	80.53	89.82	87.39	89.27	86.96	83.75
	Average per employee £	335.34	330.86	314.56	305.70	306.74	301.35	326.99
1946–47.	Amount paid £	87,122,808	63,035,226	18,279.996	18,194,115	8,148,191	4,991,493	199,771,829
	Proportion of total %	84.11	80.82	90.00	88.58	89.49	88.53	84.23
	Average per employee £	355.02	349.29	322.54	331.31	315.15	323.62	345.18
1947–48.	Amount paid £	106,027,823	76,312,216	21,658,839	22,035,219	9,629,341	6,068,411	241,731,849
	Proportion of total %	84.58	81.35	89.64	88.66	89.70	88.39	84.59
	Average per employee £	405.77	401.52	357.14	385.31	349.33	369.89	394.24
1948–49.	Amount paid £	123262747	90,764,923	26,330,646	26,139,989	11555461	7,503,261	285,557,027
	Proportion of total %	84.12	80.74	89.42	88.58	89.38	88.73	84.16
	Average per employee £	455.88	457.85	405.20	442.11	390.29	425.40	446.20
1949–50.	Amount paid £	135875101	105135487	30,947,853	29,907,392	13691695	8,537,495	324,095,023
	Proportion of total %	83.80	80.71	89.06	88.47	89.53	88.51	83.99
	Average per employee £	499.33	510.86	446.87	487.71	433.40	465.44	492.23

TOTAL AND AVERAGE SALARIES AND WAGES: MALES AND FEMALES —*continued.*

Particulars.		N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
				FEMALES.				
1938–39.	Amount paid £	6,334,630	7,020,796	967,228	681,522	444,734	245,473	15,694,383
	Proportion of total %	14.20	19.49	8.88	8.34	9.72	9.90	14.70
	Average per employee £	103.66	108.25	96.00	86.44	99.58	93.19	103.92
1945–46.	Amount paid £	14,267,414	13,726,441	1,834,360	2,115,235	846,284	652,949	33,442,683
	Proportion of total %	16.28	19.47	10.18	12.61	10.73	13.04	16.25
	Average per employee £	172.65	179.26	155.85	156.05	142.62	159.02	171.88
1946–47.	Amount paid £	16,464,751	14,958,539	2,030,545	2,344,843	956,819	646,440	37,401,937
	Proportion of total %	15.89	19.18	10.00	11.42	10.51	11.47	15.77
	Average per employee £	190.48	196.20	167.04	169.41	155.20	173.45	188.36
1947–48.	Amount paid £	19,318,055	17,489,972	2,504,377	2,817,779	1,106,306	796,926	44,033,415
	Proportion of total %	15.42	18.65	10.36	11.34	10.30	11.61	15.41
	Average per employee £	215.16	222.98	191.38	199.25	173.38	202.32	213.99
1948–49.	Amount paid £	23,272,895	21,645,518	3,115,988	3,370,218	1,372,369	953,145	53,730,133
	Proportion of total %	15.88	19.26	10.58	11.42	10.62	11.27	15.84
	Average per employee £	245.02	261.17	216.90	227.81	208.35	234.25	246.83
1949–50.	Amount paid £	26,271,993	25,119,207	3,799,936	3,899,337	1,601,546	1,108,764	61,800,783
	Proportion of total %	16.20	19.29	10.94	11.53	10.47	11.49	16.01
	Average per employee £	270.27	291.35	240.93	257.30	231.50	265.32	274.12

(v) *Managers, Clerical Staff and Other Employees.* A further analysis of salaries and wages paid is given in the following table for 1949–50 and shows the amounts paid to managers, clerical staff, etc., and those paid to other employees. As previously mentioned, amounts drawn by working proprietors are excluded in all cases :—

SALARIES AND WAGES: MANAGERS, CLERICAL STAFF, ETC., AND OTHER EMPLOYEES, 1949–50.

(£.)

Class of Industry.	Salaries and Wages Paid to—						
	Managers, Clerical Staff, Chemists, Draftsmen, etc.		All Other Employees.		All Employees.		
	Males.	Females.	Males.	Females.	Males.	Females.	Total.
I. Treatment of Non-metalliferous Mine and Quarry Products	893,883	119,002	6,601,867	33,908	7,495,750	152,910	7,648,660
II. Bricks, Pottery, Glass, etc.	655,988	125,966	7,531,633	226,175	8,187,621	352,141	8,539,762
III. Chemicals, Dyes, Explosives, Paints, Oils and Grease ..	3,045,154	680,243	10,675,034	1,576,790	13,720,188	2,257,033	15,977,221
IV. Industrial Metals, Machines, Conveyances	20,070,504	3,849,695	128,445,466	5,250,453	148,515,970	9,100,148	157,616,118
V. Precious Metals, Jewellery and Plate	233,477	82,548	2,157,253	218,087	2,390,730	300,635	2,691,365
VI. Textiles and Textile Goods (not Dress)	1,873,781	715,202	12,746,960	9,237,507	14,620,741	9,952,709	24,573,450
VII. Skins and Leather (not Clothing or Footwear)	727,596	133,289	5,491,898	923,513	6,219,494	1,056,802	7,276,296
VIII. Clothing (except Knitted)	2,134,959	1,026,972	12,012,239	21,638,761	14,147,198	22,665,733	36,812,931
IX. Food, Drink and Tobacco ..	6,346,616	1,529,327	36,726,458	6,946,416	43,073,074	8,475,743	51,548,817
X. Woodworking and Basketware ..	1,892,931	331,321	18,298,197	186,862	20,191,128	518,183	20,709,311
XI. Furniture of Wood, Bedding, etc. ..	589,781	177,389	6,269,535	637,572	6,859,316	814,961	7,674,277
XII. Paper, Stationery, Printing, Bookbinding, etc. ..	2,804,727	920,876	16,843,886	2,758,675	19,648,613	3,679,551	23,328,164
XIII. Rubber	800,582	161,492	4,642,146	580,511	5,442,728	742,003	6,184,731
XIV. Musical Instruments	49,285	17,143	416,939	59,172	466,224	76,315	542,539
XV. Miscellaneous Products	940,313	285,842	4,715,437	1,337,383	5,655,750	1,623,225	7,278,975
Total, Classes I. to XV.	43,059,577	10,156,307	273,574,948	51,611,785	316,634,525	61,768,092	378,402,617
XVI. Heat, Light and Power	701,500	27,793	6,758,998	4,898	7,460,498	32,691	7,493,189
Grand Total ..	43,761,077	10,184,100	280,333,946	51,616,683	324,095,023	61,800,783	385,895,806
Average paid per employee	673.86	288.22	472.35	271.50	492.23	274.12	436.59

3. Power, Fuel and Light Used.—(i) *In Classes of Industry*, 1949–50. The expenditure by factories on power, fuel and light, including the value of lubricants and water, is of considerable importance ; in 1949–50 it amounted to a new high level of £54,829,516, an increase of £8,767,694 as compared with the previous year and approximately three and one half times the corresponding value in 1938–39. The following table shows the value of power, fuel and light, etc., used in the different classes of industry in 1949–50 :—

FACTORIES : VALUE OF POWER, FUEL AND LIGHT USED (*a*), 1949–50.

(£.)

Class of Industry.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia
I. Treatment of Non-metalliferous Mine and Quarry Products	773,943	611,602	227,072	219,997	175,666	127,850	2,136,130
II. Bricks, Pottery, Glass, etc.	1,750,926	867,807	116,508	271,164	172,966	35,657	3,215,028
III. Chemicals, Dyes, Explosives, Paints, Oils and Grease ..	1,407,043	954,319	102,030	343,246	187,854	35,404	3,029,896
IV. Industrial Metals, Machines, Conveyances	8,546,246	1,961,283	546,460	2,087,645	324,850	448,625	13,915,109
V. Precious Metals, Jewellery and Plate	42,715	56,292	4,662	10,893	4,644	359	119,565
VI. Textiles and Textile Goods (not Dress)	610,501	988,885	28,390	107,923	19,708	62,759	1,818,166
VII. Skins and Leather (not Clothing or Footwear) ..	233,418	313,370	39,864	102,941	40,929	40,058	770,580
VIII. Clothing (except knitted)	370,620	445,679	59,595	57,142	35,110	13,811	981,957
IX. Food, Drink and Tobacco ..	2,794,341	2,580,182	1,407,716	795,011	493,269	205,530	8,276,049
X. Woodworking and Basketware ..	516,082	285,955	187,967	61,595	105,891	74,113	1,231,603
XI. Furniture of Wood, Bedding, etc. ..	62,970	44,282	19,612	20,952	10,725	3,814	162,355
XII. Paper, Stationery, Printing, Bookbinding, etc. ..	485,282	584,640	56,872	114,623	32,724	296,868	1,571,009
XIII. Rubber	368,702	424,637	29,380	23,955	4,939	4,897	856,510
XIV. Musical Instruments	21,744	1,902	144	239	54	..	24,083
XV. Miscellaneous Products	176,174	168,879	11,053	22,806	4,669	1,959	385,540
Total, Classes I. to XV.	18,160,707	10,289,714	2,837,325	4,240,132	1,613,908	1,351,704	38,493,580
XVI. Heat, Light and Power	7,374,520	3,404,522	2,282,070	1,701,908	1,570,247	2,669	16,335,936
Grand Total ..	25,535,227	13,694,236	5,119,395	5,942,040	3,184,245	1,354,373	54,829,516

(*a*) Includes value of lubricants and water.

(ii) *Values of Items*, 1949–50. The following table shows the values of the various items of power, fuel and light used in factories in each State during the year 1949–50 :—

FACTORIES : VALUE OF ITEMS OF POWER, FUEL AND LIGHT USED(*a*), 1949–50.

(£.)

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Coal, Black	8,723,158	1,724,520	2,739,796	[b]1,725,443	965,240	264,767	[b]16,142,924
„ Brown	..	2,174,717	..	..	..	..	2,174,717
Brown Coal Briquettes ..	..	1,155,359	..	..	..	..	1,155,359
Coke	4,232,695	625,771	67,347	[c]1,063,380	71,353	56,730	[c]6,117,276
Wood	372,302	730,486	322,669	297,791	575,143	174,491	2,472,882
Fuel Oil	3,570,280	2,308,369	522,134	1,061,571	653,564	180,568	8,296,486
Tar (Fuel)	285,736	166,226	1,609	55,536	18,326	11,603	539,036
Electricity	5,622,259	3,390,331	956,424	1,270,180	598,920	572,874	12,410,988
Gas	1,178,437	319,184	61,141	79,236	26,694	8,813	1,673,505
Other (Charcoal, etc.) ..	56,650	227,041	91,168	143,073	72,171	2,042	592,145
Water	922,150	516,331	149,916	130,153	104,593	34,966	1,858,109
Lubricating Oils	571,560	355,901	207,191	115,677	98,241	47,519	1,396,089
Total	25,535,227	13,694,236	5,119,395	5,942,040	3,184,245	1,354,373	54,829,516

(*a*) Includes value of lubricants and water. (*b*) Includes £408,512, the value of 246,800 tons of Leigh Creek coal. (*c*) Includes £13,546, the value of 16,009 tons of coke breeze.

(iii) *Quantities of Fuel used,* 1949–50. The following table shows the quantities of fuel used in factories in each State during the year 1949–50 :—

FACTORIES : QUANTITIES OF FUEL USED, 1949–50.

Particulars.	Unit.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Coal, Black	Ton	3,890,688	453,858	995,050	a 605,775	399,866	118,615	a 6,463,852
„ Brown ..	„	..	5,947,923	..	..	..	..	5,947,923
Brown Coal Briquettes	„	..	550,627	..	..	..	..	550,627
Coke	„	1,436,851	161,766	23,197	b 225,813	21,786	10,450	b 1,879,863
Wood	„	227,562	570,363	266,043	193,851	473,530	145,984	1,877,333
Fuel Oil	Gal.	73,640,735	44,596,241	7,378,632	20,171,000	10,113,408	2,885,398	158,785,414
Tar (Fuel).. ..	„	18,802,494	5,269,408	67,163	1,733,265	895,456	565,150	27,332,936

(*a*) Includes 246,800 tons of Leigh Creek coal. (*b*) Includes 16,009 tons of coke breeze.

(iv) *Total Value,* 1938–39 *and* 1945–46 *to* 1949–50. The next table shows the sums expended on power, fuel and light during the years 1945–46 to 1949–50 compared with 1938–39 :—

FACTORIES : VALUE OF POWER, FUEL AND LIGHT USED.(*a*)
(£.)

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
1938–39	7,651,627	3,999,934	1,423,549	1,017,537	1,169,268	438,006	15,699,921
1945–46	12,206,641	6,940,980	2,298,019	2,851,320	1,835,677	904,011	27,036,648
1946–47	13,964,552	7,835,022	2,627,507	3,620,194	2,049,489	923,336	31,020,100
1947–48	17,313,940	9,014,905	3,184,155	4,280,739	2,284,627	1,015,353	37,093,719
1948–49	21,611,375	11,336,502	4,085,459	5,123,290	2,745,181	1,160,015	46,061,822
1949–50	25,535,227	13,694,236	5,119,395	5,942,040	3,184,245	1,354,373	54,829,516

(*a*) Includes value of lubricants and water.

4. **Value of Materials Used.**—(i) *In Classes of Industry,* 1949–50. The value of materials used (which includes the value of containers, packing, etc., the cost of tools replaced and repairs to plant) in factories in Australia in 1949–50 reached £929,094,287 representing 56·46 per cent. of the value of the final output (*see* par. 5). The following table shows the value of the materials used in various classes of industry in each State :—

FACTORIES : VALUE OF MATERIALS USED, 1949–50.
(£.)

Class of Industry.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
I. Treatment of Non-metalliferous Mine and Quarry Products	8,487,863	4,036,954	1,341,905	1,051,224	787,393	585,664	16,291,003
II. Bricks, Pottery, Glass, etc.	3,546,008	1,654,458	280,970	668,712	270,563	71,484	6,492,195
III. Chemicals, Dyes, Explosives, Paints, Oils and Grease ..	35,135,757	21,994,495	2,566,133	5,053,549	4,233,220	675,262	69,658,416
IV. Industrial Metals, Machines, Conveyances ..	133,724,383	61,086,926	15,602,790	34,687,055	6,662,523	6,843,110	258,606,787
V. Precious Metals, Jewellery and Plate	917,025	1,928,746	50,469	74,786	51,773	2,724	3,025,523
VI. Textiles and Textile Goods (not Dress)	25,167,977	38,564,625	2,421,077	2,808,337	1,252,653	3,386,010	73,600,679
VII. Skins and Leather (not Clothing or Footwear) ..	10,710,632	8,414,572	1,577,305	7,075,013	1,254,457	824,228	29,856,207
VIII. Clothing (except Knitted)	25,583,785	26,132,110	3,593,203	2,267,905	1,639,344	237,755	59,454,102
IX. Food, Drink and Tobacco ..	81,944,271	83,260,091	68,997,360	20,055,851	13,353,734	7,499,949	275,111,256
X. Woodworking and Basketware ..	16,838,788	11,443,397	6,013,518	4,141,953	2,441,126	2,101,429	42,980,211
XI. Furniture of Wood, Bedding, etc. ..	5,994,153	4,554,488	1,971,493	1,494,250	978,745	300,633	15,293,762
XII. Paper, Stationery, Printing, Bookbinding, etc. ..	19,136,569	15,132,469	2,516,597	2,057,083	1,170,228	1,621,177	41,634,123
XIII. Rubber	7,465,278	6,713,368	598,135	362,498	70,141	65,528	15,274,948
XIV. Musical Instruments	684,601	44,597	6,265	3,429	2,652	..	741,544
XV. Miscellaneous Products	4,921,679	5,610,173	242,770	751,059	92,248	55,451	11,673,380
Total, Classes I. to XV.	380,258,769	290,571,469	107,779,990	82,552,704	34,260,800	24,270,404	919,694,136
XVI. Heat, Light and Power	4,208,486	2,956,068	902,537	724,499	488,966	119,595	9,400,151
Grand Total ..	384,467,255	293,527,537	108,682,527	83,277,203	34,749,766	24,389,999	929,094,287

(ii) *Total Amount*, 1938–39 *and* 1945–46 *to* 1949–50. The following table shows the values of materials used in factories for the years 1945–46 to 1949–50 compared with 1938–39 :—

FACTORIES : VALUE OF MATERIALS USED.

(£.)

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
1938–39 ..	120,501,795	82,971,608	42,596,049	20,308,797	9,603,657	5,321,540	281,303,446
1945–46 ..	201,706,086	159,797,941	58,633,079	37,770,050	18,360,635	12,019,637	488,287,428
1946–47 ..	245,436,182	176,106,507	62,134,914	52,015,884	20,472,010	12,978,867	569,144,364
1947–48 ..	292,556,789	209,896,100	79,173,835	61,620,640	24,956,972	15,524,694	683,729,030
1948–49 ..	336,913,961	252,741,001	97,044,670	75,227,229	29,198,424	19,422,419	810,547,704
1949–50 ..	384,467,255	293,527,537	108,682,527	83,277,203	34,749,766	24,389,999	929,094,287

5. **Value of Output.**—(i) *In Classes of Industry*, 1949–50. The value of the output of factories in the various classes in each State in 1949–50 is shown in the following table. It represents the selling value at the factory of goods made or processed during the year, including by-products. In addition, it includes the amount received for other work done such as repair work, assembling and making up for customers. The difference between the sum of the values of the materials and of the power, fuel and light used, and the value of output is the real value of factory production (*see* par. 6).

FACTORIES : VALUE OF OUTPUT, 1949–50.

(£.)

Class of Industry.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
I. Treatment of Non-metalliferous Mine and Quarry Products	14,889,278	8,880,775	2,643,204	2,346,242	1,775,888	1,310,587	31,845,974
II. Bricks, Pottery, Glass, etc.	12,285,629	5,661,971	1,026,818	2,209,098	1,188,746	239,086	22,611,348
III. Chemicals, Dyes, Explosives, Paints, Oils and Grease ..	58,733,685	35,767,755	3,759,103	8,212,289	5,861,355	1,025,130	113,359,317
IV. Industrial Metals, Machines, Conveyances ..	255,329,660	134,231,798	37,218,392	62,553,877	15,383,792	14,034,409	518,751,928
V. Precious Metals, Jewellery and Plate	2,310,912	4,338,537	218,827	304,025	191,259	16,786	7,380,346
VI. Textiles and Textile Goods (not Dress)	40,734,067	62,139,095	3,406,471	4,590,288	1,958,043	5,548,230	118,376,194
VII. Skins and Leather (not Clothing or Footwear)	15,731,724	13,428,697	2,629,996	8,263,762	1,916,100	1,346,830	43,317,109
VIII. Clothing (except Knitted)	49,214,793	52,057,960	7,441,613	5,164,891	3,591,734	679,313	118,150,304
IX. Food, Drink and Tobacco ..	119,311,712	118,201,095	89,068,387	27,949,301	19,077,009	10,769,095	384,376,599
X. Woodworking and Basketware ..	30,157,549	21,166,958	12,163,650	6,807,157	5,002,033	4,047,340	79,344,687
XI. Furniture of Wood, Bedding, etc. ..	11,276,441	8,480,366	3,677,721	2,692,301	1,797,750	649,877	28,574,456
XII. Paper, Stationery, Printing, Bookbinding, etc. ..	38,966,225	29,666,014	5,679,571	4,668,010	2,861,114	4,372,845	86,213,779
XIII. Rubber	11,557,359	11,623,706	1,227,528	776,060	174,904	142,211	25,501,768
XIV. Musical Instruments	1,267,175	161,635	26,078	25,627	11,383	..	1,491,898
XV. Miscellaneous Products	10,827,599	10,748,272	521,647	1,327,732	277,174	173,885	23,876,309
Total, Classes I. to XV.	672,593,808	516,554,634	170,709,006	137,890,660	61,068,284	44,355,624	1603172016
XVI. Heat, Light and Power	20,609,195	9,911,646	4,446,983	3,637,569	2,909,753	724,335	42,239,481
Grand Total ..	693,203,003	526,466,280	175,155,989	141,528,229	63,978,037	45,079,959	1645411497

(ii) *Total*, 1938–39 *and* 1945–46 *to* 1949–50. The following table shows the value of output in each State during each of the years shown.

FACTORIES : VALUE OF OUTPUT.

(£.)

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
1938–39 ..	218,419,313	152,967,611	63,321,073	35,005,264	19,548,511	11,158,205	500,419,977
1945–46 ..	367,092,216	286,989,408	91,200,751	66,222,998	34,022,839	22,119,305	867,647,517
1946–47 ..	445,047,142	315,437,679	100,099,090	86,702,572	38,269,975	24,569,748	1,011,026,206
1947–48 ..	528,481,585	377,412,025	125,244,343	104,571,084	45,625,796	28,784,564	1,210,119,397
1948–49 ..	609,724,181	446,837,879	154,669,803	124,018,152	53,417,492	36,657,036	1,425,324,543
1949–50 ..	693,203,003	526,466,280	175,155,989	141,528,229	63,978,037	45,079,959	1,645,411,497

6. **Value of Production.**—(i) *In Classes of Industry*, 1949–50. The value of production for any industry was defined at the Conference of Statisticians at Sydney in 1925 as "the value of consumable commodities produced during the year, deducting, so far as possible, the value of goods consumed in process of production".

In accordance with this definition, it was agreed that a deduction consisting of the costs of raw material, containers, power, fuel, light, lubricants, water, tools replaced, repairs to plant and depreciation should be made from the "value of output". All these deductions with the exception of depreciation are included in the items "value of materials used" and "value of fuel used" as defined above. On account of the difficulty experienced in securing accurate figures for depreciation, it was agreed that no deduction should be made on this account for the present. The value of production as given in the following tables is obtained, therefore, by deducting "value of materials used" and "value of fuel used" from the "value of the output".

The figure thus calculated is, however, not the net value of production. The deduction for depreciation, particulars of which are shown in § 9, par. 4, was estimated at £29,103,162 for 1949–50. Many miscellaneous expenses, such as taxation, insurance, advertising and other sundry charges have not been taken into account. Therefore, it must not be inferred that when wages and salaries are deducted from the value of production the whole of the "surplus" is available for interest and profit.

The value of factory production therefore approximates "net value added" in the manufacturing process. It amounted in 1949–50 to £661.5 million to which Class IV., Industrial Metals, etc., with £246.2 million or almost four times the value of production of this class in 1938–39, made the greatest contribution. This total value of production in 1949–50 represented an increase of £92.8 million over the figure for 1948–49 and £458 million (225 per cent.) over the value of production recorded in 1938–39.

The following table shows the value of production in 1949–50 in each State for the various classes of industry :—

FACTORIES : VALUE OF PRODUCTION, 1949–50.

(£.)

Class of Industry.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
I. Treatment of Non-metalliferous Mine and Quarry Products	5,627,472	4,232,219	1,074,227	1,075,021	812,829	597,073	13,418,841
II. Bricks, Pottery, Glass, etc.	6,988,695	3,139,706	629,340	1,269,222	745,217	131,945	12,904,125
III. Chemicals, Dyes, Explosives, Paints, Oils and Grease ..	22,190,885	12,818,941	1,090,940	2,815,494	1,440,281	314,464	40,671,005
IV. Industrial Metals, Machines, Conveyances ..	113,059,031	71,183,589	21,069,142	25,779,177	8,396,419	6,742,674	246,230,032
V. Precious Metals, Jewellery and Plate	1,351,172	2,353,499	163,696	218,346	134,842	13,703	4,235,258
VI. Textiles and Textile Goods (not Dress)	14,955,589	22,585,585	957,004	1,674,028	685,682	2,099,461	42,957,349
VII. Skins and Leather (not Clothing or Footwear)	4,787,674	4,700,755	1,012,827	1,085,808	620,714	482,544	12,690,322
VIII. Clothing (except Knitted)	23,260,388	25,480,171	3,788,815	2,839,844	1,917,280	427,747	57,714,245
IX. Food, Drink and Tobacco ..	34,573,100	32,360,822	18,663,311	7,098,439	5,230,006	3,063,616	100,989,294
X. Woodworking and Basketware ..	12,802,679	9,437,606	5,962,165	2,603,609	2,455,016	1,871,798	35,132,873
XI. Furniture of Wood, Bedding, etc. ..	5,219,318	3,881,596	1,686,616	1,177,099	808,280	345,430	13,118,339
XII. Paper, Stationery, Printing, Bookbinding, etc. ..	19,344,374	13,948,905	3,106,102	2,496,304	1,658,162	2,454,800	43,008,647
XIII. Rubber	3,723,379	4,485,701	600,013	389,607	99,824	71,786	9,370,310
XIV. Musical Instruments	560,830	115,136	19,669	21,959	8,677	..	726,271
XV. Miscellaneous Products	5,729,746	4,969,220	267,824	553,867	180,257	116,475	11,817,389
Total, Classes I. to XV.	274,174,332	215,693,451	60,091,691	51,097,824	25,193,486	18,733,516	644,984,300
XVI. Heat, Light and Power	9,026,189	3,551,056	1,262,376	1,211,162	850,540	602,071	16,503,394
Grand Total ..	283,200,521	219,244,507	61,354,067	52,308,986	26,044,026	19,335,587	661,487,694

(ii) *Total and Averages,* 1938–39 *and* 1945–46 *to* 1949–50. The value of production and the amount per person employed and per head of population are shown in the following table for the last five years compared with 1938–39. For Australia as a whole the value of production per head of population increased from £29.41 per head in 1938–39 to £82.18 per head in 1949–50. For value per person employed, the increase was not so pronounced (from £360 per head in 1938–39 to £721 in 1949–50) owing to the considerable increase in the numbers of persons employed in 1949–50 as compared with 1938–39.

FACTORIES: VALUE OF PRODUCTION.

(£.)

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
				VALUE.			
1938–39 ..	90,265,891	65,996,069	19,301,475	13,678,930	8,775,586	5,398,659	203,416,610
1945–46 ..	153,179,489	120,250,487	30,269,653	25,601,628	13,826,527	9,195,657	352,323,441
1946–47 ..	186,546,408	131,496,150	35,336,669	31,066,494	15,748,476	10,667,545	410,861,742
1947–48 ..	218,610,856	158,501,020	42,886,353	38,669,705	18,384,197	12,244,517	489,296,648
1948–49 ..	251,198,845	182,760,376	53,539,674	43,667,633	21,473,887	16,074,602	568,715,017
1949–50 ..	283,200,521	219,244,507	61,354,067	52,308,986	26,044,026	19,335,587	661,487,694
				PER PERSON EMPLOYED.			
1938–39 ..	395	327	357	315	378	391	360
1945–46 ..	493	469	462	405	457	478	473
1946–47 ..	544	495	494	439	466	535	510
1947–48 ..	602	570	559	527	511	578	576
1948–49 ..	664	626	645	575	560	711	639
1949–50 ..	741	722	690	666	639	823	721
				PER HEAD OF POPULATION.			
1938–39 ..	32.99	35.25	19.15	22.99	18.79	22.72	29.41
1945–46 ..	52.23	59.66	27.92	40.57	28.21	36.74	47.42
1946–47 ..	62.95	64.46	32.21	48.50	31.67	41.90	54.83
1947–48 ..	72.71	76.60	38.54	59.28	36.13	46.77	64.04
1948–49 ..	81.98	86.48	47.18	65.65	41.12	59.92	72.92
1949–50 ..	89.28	101.02	52.75	76.16	47.72	69.70	82.18

7. **Value of Output and Cost of Production.**—As the total value of the output for Australia for 1949–50 was estimated at £1,645,411,497, there remained, after payment of £929,094,287 for the value of the materials used, £385,895,806 for salaries and wages, and £54,829,516 for power, fuel and light, a balance of £275,591,888 to provide for all other costs and overhead expenses such as rent, interest, insurance, pay-roll tax, income tax, depreciation etc., as well as drawings by working proprietors and profit. The following table gives corresponding particulars for each State expressed absolutely and as percentages of the total value of the output for the year 1949–50 :—

FACTORIES: VALUE OF OUTPUT AND COST OF PRODUCTION, 1949–50.

State.	Materials Used. (*a*)	Power, Fuel and Light. (*b*)	Salaries and Wages.	Balance (Output less Materials, Fuel and Wages.)(*c*)	Total Value of Output.
			VALUE AND COST, ETC. (£.)		
New South Wales ..	384,467,255	25,535,227	162,147,094	121,053,427	693,203,003
Victoria	293,527,537	13,694,236	130,254,694	88,989,813	526,466,280
Queensland.. ..	108,682,527	5,119,395	34,747,789	26,606,278	175,155,989
South Australia ..	83,277,203	5,942,040	33,806,729	18,502,257	141,528,229
Western Australia ..	34,749,766	3,184,245	15,293,241	10,750,785	63,978,037
Tasmania	24,389,999	1,354,373	9,646,259	9,689,328	45,079,959
Australia ..	929,094,287	54,829,516	385,895,806	275,591,888	1,645,411,497

(*a*) Includes the value of containers, packing, etc., also the cost of tools replaced and repairs to plant. (*b*) Includes lubricants and water. (*c*) *See* paragraph preceding this table.

FACTORIES: VALUE OF OUTPUT AND COST OF PRODUCTION, 1949–50—*continued.*

State.	Materials Used. (*a*)	Power, Fuel and Light. (*b*)	Salaries and Wages.	Balance (Output less Materials, Fuel and Wages.)(*c*)	Total Value of Output.
PROPORTION OF COSTS, ETC., TO TOTAL VALUE. (Per cent.)					
New South Wales ..	55.46	3.68	23.40	17.46	100
Victoria	55.75	2.60	24.75	16.90	100
Queensland.. ..	62.05	2.92	19.84	15.19	100
South Australia ..	58.84	4.20	23.89	13.07	100
Western Australia ..	54.32	4.98	23.90	16.80	100
Tasmania	54.10	3.01	21.40	21.49	100
Australia ..	56.47	3.33	23.45	16.75	100

(*a*) Includes the value of containers, packing, etc., also the cost of tools replaced and repairs to plant. (*b*) Includes lubricants and water. (*c*) *See* paragraph preceding this table.

§ 9. Value of Land, Buildings, Plant and Machinery.

1. **General.**—The following statement shows the value of land and buildings and of plant and machinery used in connexion with manufacturing industries during the year 1949–50:—

FACTORIES: VALUE OF LAND, BUILDINGS, PLANT AND MACHINERY(*a*), 1949–50.
(£.)

Value of—	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
Land and buildings	110,597,506	84,123,892	20,806,450	24,316,806	11,055,002	8,649,734	259,549,390
Plant and machinery	113,864,379	92,748,475	28,903,570	24,900,949	11,456,767	13,728,161	285,602,301
Total ..	224,461,885	176,872,367	49,710,020	49,217,755	22,511,769	22,377,895	545,151,691

(*a*) Includes estimated value of rented premises and plant.

The values recorded in this section are generally the values apportioned in the books of the individual firms after allowance has been made for depreciation, but they include estimates of the capital value of premises and plant rented. The totals shown in the table consequently do not represent the actual amount of capital invested in the items specified.

2. **Value of Land and Buildings.**—(i) *Total for Australia,* 1938–39 *and* 1945–46 *to* 1949–50. The following table shows for Australia as a whole the approximate value of land and buildings occupied in connexion with manufacturing industries for 1938–39 and 1945–46 to 1949–50.

FACTORIES : VALUE OF LAND AND BUILDINGS(*a*), AUSTRALIA.

(£.)

Class of Industry.	1938–39.	1945–46.	1946–47.	1947–48.	1948–49.	1949–50.
I. Treatment of Non-metalliferous Mine and Quarry Products	2,778,746	3,019,524	3,376,681	3,860,244	4,331,383	4,850,741
II. Bricks, Pottery, Glass, etc.	2,953,557	3,331,450	3,771,332	3,952,449	4,245,929	4,718,877
III. Chemicals, Dyes, Explosives, Paints, Oils and Grease	7,377,551	18,461,520	17,064,501	18,624,009	20,253,616	22,075,717
IV. Industrial Metals, Machines, Conveyances	34,841,028	59,530,238	59,008,483	64,868,139	73,247,130	81,682,569
V. Precious Metals, Jewellery and Plate	633,009	751,611	1,041,763	1,278,652	1,514,422	1,613,825
VI. Textiles and Textile Goods (not Dress)	5,999,671	9,111,725	9,608,636	10,602,891	11,904,618	14,837,708
VII. Skins and Leather (not Clothing or Footwear)	2,095,886	2,965,986	3,228,483	3,441,318	3,777,319	4,157,863
VIII. Clothing (except Knitted)	10,623,619	13,993,956	15,608,247	16,916,828	18,440,386	19,763,620
IX. Food, Drink and Tobacco	33,273,248	40,129,049	42,610,494	45,450,787	48,075,384	52,196,677
X. Woodworking and Basketware	4,106,963	5,441,290	6,156,881	6,911,869	8,071,803	9,441,767
XI. Furniture of Wood, Bedding, etc.	2,533,254	2,828,984	3,300,578	3,834,648	4,234,789	4,827,770
XII. Paper, Stationery, Printing, Bookbinding, etc.	10,639,315	11,604,666	12,071,708	13,023,072	14,516,790	16,234,101
XIII. Rubber	1,676,043	1,865,044	1,990,884	2,152,455	2,475,764	3,038,590
XIV. Musical Instruments ..	104,838	133,182	193,402	233,601	268,405	325,218
XV. Miscellaneous Products ..	1,432,857	2,964,894	3,125,399	3,679,765	3,929,181	4,359,854
Total, Classes I. to XV...	121,069,585	176,133,119	182,157,472	198,830,727	219,286,919	244,124,897
XVI. Heat, Light and Power..	9,850,829	10,806,100	10,994,312	12,312,675	13,452,942	15,424,493
Grand Total ..	130,920,414	186,939,219	193,151,784	211,143,402	232,739,861	259,549,390

(*a*) Includes estimated value of rented premises.

(ii) *In Classes of Industry in States*, 1949–50. The following table gives particulars of the various classes of industry in each State.

FACTORIES : VALUE OF LAND AND BUILDINGS(*a*), 1949–50.

(£.)

Class of Industry.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
I. Treatment of Non-metalliferous Mine and Quarry Products	2,335,650	1,441,475	314,778	347,565	188,234	223,039	4,850,741
II. Bricks, Pottery, Glass, etc.	2,761,288	1,193,471	191,252	306,717	215,501	50,648	4,718,877
III. Chemicals, Dyes, Explosives, Paints, Oils and Grease ..	7,931,403	6,881,726	383,428	5,722,359	971,823	184,978	22,075,717
IV. Industrial Metals, Machines, Conveyances ..	38,292,684	25,207,009	5,842,287	6,595,632	3,364,475	2,380,482	81,682,569
V. Precious Metals, Jewellery and Plate	560,089	795,754	64,524	102,174	77,943	13,341	1,613,825
VI. Textiles and Textile Goods (not Dress)	5,277,165	8,253,363	374,696	488,916	181,287	262,281	14,837,708
VII. Skins and Leather (not Clothing or Footwear)	1,523,099	1,607,230	206,776	468,735	150,871	201,152	4,157,863
VIII. Clothing (except Knitted)	9,003,129	7,501,480	1,113,551	1,126,301	849,181	169,978	19,763,620
IX. Food, Drink and Tobacco ..	19,523,542	15,183,985	7,923,947	4,607,260	3,005,680	1,952,263	52,196,677
X. Woodworking and Basketware ..	4,252,358	2,604,639	969,009	735,643	539,644	340,474	9,441,767
XI. Furniture of Wood, Bedding, etc. ..	1,779,810	1,631,346	602,901	378,608	304,136	130,969	4,827,770
XII. Paper, Stationery, Printing, Bookbinding, etc. ..	6,403,668	5,251,205	1,126,695	1,003,930	618,885	1,829,718	16,234,101
XIII. Rubber	1,168,411	1,434,625	191,472	129,965	62,340	51,777	3,038,590
XIV. Musical Instruments	243,636	58,459	6,065	11,110	5,948	..	325,218
XV. Miscellaneous Products	2,105,164	1,761,264	130,010	212,507	93,942	56,967	4,359,854
Total, Classes I. to XV.	103,161,096	80,807,031	19,441,391	22,237,422	10,629,890	7,848,067	244,124,897
XVI. Heat, Light and Power	7,436,410	3,316,861	1,365,059	2,079,384	425,112	801,667	15,424,493
Grand Total ..	110,597,506	84,123,892	20,806,450	24,316,806	11,055,002	8,649,734	259,549,390

(*a*) Includes estimated value of rented premises.

(iii) *Totals in each State.* The following table shows the value of land and buildings in each State for the years 1938–39 and 1945–46 to 1949–50 :—

FACTORIES : VALUE OF LAND AND BUILDINGS.(a)

(£.)

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
1938–39 ..	57,353,625	42,026,245	12,299,089	8,710,700	6,813,653	3,717,102	130,920,414
1945–46 ..	80,308,347	60,264,953	14,331,556	18,446,966	8,282,694	5,304,703	186,939,219
1946–47 ..	81,894,595	62,771,493	15,391,033	18,659,534	8,756,924	5,678,205	193,151,784
1947–48 ..	91,860,393	66,229,391	16,608,766	20,690,827	9,482,660	6,271,365	211,143,402
1948–49 ..	101,240,784	73,383,784	18,508,165	22,217,619	10,054,598	7,334,911	232,739,861
1949–50 ..	110,597,506	84,123,892	20,806,450	24,316,806	11,055,002	8,649,734	259,549,390

(a) Includes estimated value of rented premises.

Prior to 1929–30 the increase in the value of land and buildings was uninterrupted. rising from £23 million in 1903 to £118 million in 1929–30, a growth of £95 million in 27 years. During the three years ended 1932–33, there was a decline of £12 million to £105.8 million, but since that year the value has risen annually and stood at £259.5 million in 1949–50.

3. **Value of Plant and Machinery.**—(i) *Total for Australia,* 1938–39 *and* 1945–46 *to* 1949–50. The following table shows for Australia the approximate value of plant and machinery used in factories in 1938–39 and each of the five years ended 1949–50 :—

FACTORIES : VALUE OF PLANT AND MACHINERY(a), AUSTRALIA.

(£.)

Class of Industry.	1938–39.	1945–46.	1946–47.	1947–48.	1948–49.	1949–50.
I. Treatment of Non-metalliferous Mine and Quarry Products	7,028,382	4,916,338	5,429,881	6,060,951	7,341,753	8,055,137
II. Bricks, Pottery, Glass, etc.	3,144,586	2,967,696	3,423,142	3,699,837	4,332,836	4,990,571
III. Chemicals, Dyes, Explosives, Paints, Oils and Grease	6,754,248	17,791,778	15,271,732	17,515,884	19,254,924	23,518,160
IV. Industrial Metals, Machines, Conveyances	33,037,801	53,901,719	52,895,953	61,079,926	70,154,863	77,596,963
V. Precious Metals, Jewellery and Plate	197,059	253,062	375,783	580,634	721,509	770,542
VI. Textiles and Textile Goods (not Dress)	6,657,416	7,736,737	8,370,807	10,200,808	12,797,123	17,484,824
VII. Skins and Leather (not Clothing or Footwear)	973,181	1,584,051	1,707,214	1,864,369	2,062,810	2,535,421
VIII. Clothing (except Knitted)	2,557,388	4,134,906	4,862,517	5,905,080	6,923,613	7,791,840
IX. Food, Drink and Tobacco	32,100,675	33,233,935	35,133,478	37,999,396	42,795,618	48,317,299
X. Woodworking and Basketware	3,907,551	5,023,174	5,862,676	6,990,790	8,481,351	10,376,627
XI. Furniture of Wood, Bedding, etc.	727,857	740,627	929,587	1,189,427	1,426,914	1,679,010
XII. Paper, Stationery, Printing, Bookbinding, etc.	9,188,227	8,556,477	9,800,832	11,517,261	15,026,711	19,192,982
XIII. Rubber	1,367,859	1,218,861	1,416,650	1,855,042	2,243,634	2,753,822
XIV. Musical Instruments ..	11,702	23,571	65,738	80,304	134,080	154,348
XV. Miscellaneous Products ..	758,273	1,855,931	1,847,270	2,356,419	2,806,582	3,275,458
Total, Classes I. to XV. ..	108,412,205	143,938,863	147,393,260	168,896,128	196,504,321	228,493,004
XVI. Heat, Light and Power ..	35,249,922	41,606,077	42,299,831	44,823,210	49,989,886	57,109,297
Grand Total ..	143,662,127	185,544,940	189,693,091	213,719,338	246,494,207	285,602,301

(a) Includes estimated value of rented plant and machinery.

Except for the years 1930–31 to 1933–34, when decreases were recorded, there has been a continuous increase in the value of plant and machinery in Australia. The increase in 1949–50 of £39.1 million over 1948–49 extended over all industrial classes. The greatest increase occurred in Class XVI., Heat, Light and Power.

(ii) *Totals in each State.* The following table shows the value of plant and machinery in each State during the years 1945–46 to 1949–50 compared with 1938–39. During 1949–50 increases occurred in all States, Victoria showing the largest increase, £16.7 million.

FACTORIES : VALUE OF PLANT AND MACHINERY.(a)

(£.)

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
1938–39 ..	62,692,956	38,626,743	18,095,415	9,749,679	8,095,064	6,402,270	143,662,127
1945–46 ..	72,560,630	58,537,394	18,690,541	19,017,955	8,507,705	8,230,715	185,544,940
1946–47 ..	75,234,273	59,124,802	19,995,249	18,408,224	8,430,574	8,499,999	189,693,091
1947–48 ..	86,714,082	65,829,201	21,830,685	20,239,623	9,189,910	9,915,837	213,719,338
1948–49 ..	99,812,061	76,079,598	25,756,957	22,791,991	9,800,130	12,253,470	246,494,207
1949–50 ..	113,864,379	92,748,475	28,903,570	24,900,949	11,456,767	13,728,161	285,602,301

(a) Includes estimated value of rented plant and machinery.

(iii) *Value according to Class of Industry*, 1949–50. The following table shows the value of plant and machinery used in factories in each State during 1949–50 according to class of industry.

FACTORIES : VALUE OF PLANT AND MACHINERY(a), 1949–50.

(£.)

Class of Industry.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
I. Treatment of Non-metalliferous Mine and Quarry Products	4,234,130	1,958,805	481,978	894,148	248,510	237,566	8,055,137
II. Bricks, Pottery, Glass, etc.	2,930,622	1,152,315	229,516	323,751	277,207	77,160	4,990,571
III. Chemicals, Dyes, Explosives, Paints, Oils and Grease ..	9,795,170	8,747,333	363,505	2,980,232	1,250,998	380,922	23,518,160
IV. Industrial Metals, Machines, Conveyances ..	38,151,982	22,354,239	4,668,838	7,785,730	2,459,247	2,176,927	77,596,963
V. Precious Metals, Jewellery and Plate	230,593	446,439	24,015	38,721	24,386	6,388	770,542
VI. Textiles and Textile Goods (not Dress)	7,015,948	8,980,091	533,684	424,017	143,042	388,042	17,484,824
VII. Skins and Leather (not Clothing or Footwear)	933,323	895,548	205,351	258,888	131,407	110,904	2,535,421
VIII. Clothing (except Knitted)	3,267,978	3,201,956	493,059	424,288	324,545	80,014	7,791,840
IX. Food, Drink and Tobacco ..	14,330,321	12,727,298	13,577,881	3,733,795	2,592,213	1,355,791	48,317,299
X. Woodworking and Basketware ..	4,026,099	2,569,421	1,680,104	477,051	916,721	707,231	10,376,627
XI. Furniture of Wood, Bedding, etc. ..	639,657	456,196	226,885	171,752	137,394	47,126	1,679,010
XII. Paper, Stationery, Printing, Bookbinding, etc. ..	6,410,035	6,386,713	1,182,494	1,031,142	499,768	3,682,830	19,192,982
XIII. Rubber	1,050,164	1,359,850	139,158	150,048	32,863	21,439	2,753,822
XIV. Musical Instruments	132,378	19,072	1,347	1,019	532	..	154,348
XV. Miscellaneous Products	1,517,916	1,485,663	70,089	141,453	39,006	21,331	3,275,458
Total, Classes I. to XV.	94,666,316	72,740,939	23,878,204	18,836,035	9,077,839	9,293,671	228,493,004
XVI. Heat, Light and Power	19,198,063	20,007,536	5,025,366	6,064,914	2,378,928	4,434,490	57,109,297
Grand Total ..	113,864,379	92,748,475	28,903,570	24,900,949	11,456,767	13,728,161	285,602,301

(a) Includes estimated value of rented plant and machinery.

4. **Depreciation of Land and Buildings and Plant and Machinery.**—The following table shows the allowance made for the depreciation of land and buildings and plant and machinery used in connexion with the manufacturing industries in each State during the year 1949–50 as recorded by factory proprietors at the annual census of factory production.

ALLOWANCE FOR DEPRECIATION OF LAND AND BUILDINGS AND PLANT AND MACHINERY, 1949–50.

(£.)

Class of Industry.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
I. Treatment of Non-metalliferous Mine and Quarry Products	630,868	216,273	92,707	70,270	27,214	54,776	1,092,108
II. Bricks, Pottery, Glass, etc.	527,785	169,677	29,248	56,688	41,446	10,353	835,197
III. Chemicals, Dyes, Explosives, Paints, Oils and Grease .	979,292	623,108	60,117	197,355	142,159	63,945	2,065,976
IV. Industrial Metals, Machines, Conveyances ..	4,276,069	2,366,512	528,557	1,069,351	261,867	487,141	8,989,497
V. Precious Metals, Jewellery and Plate	32,628	66,047	2,017	3,367	1,459	221	105,739
VI. Textiles and Textile Goods (not Dress)	765,630	1,367,188	44,683	135,327	28,034	57,898	2,398,760
VII. Skins and Leather (not Clothing or Footwear)	116,323	140,086	30,683	41,811	16,849	57,482	403,234
VIII. Clothing (except Knitted) ..	480,362	387,059	59,000	54,154	42,955	11,609	1,035,139
IX. Food, Drink and Tobacco ..	1,687,683	1,594,788	1,220,117	486,423	269,500	169,953	5,428,464
X. Woodworking and Basketware ..	472,911	333,282	226,253	90,217	100,416	65,152	1,288,231
XI. Furniture of Wood, Bedding, etc. ..	88,815	71,226	29,016	32,000	15,455	6,299	242,811
XII. Paper, Stationery, Printing, Bookbinding, etc. ..	846,599	719,005	162,175	126,274	73,568	286,937	2,214,558
XIII. Rubber	275,512	304,141	22,879	25,696	7,438	5,301	640,967
XIV. Musical Instruments	11,163	3,131	123	..	110	..	14,527
XV. Miscellaneous Products	215,603	216,578	5,793	20,848	5,785	6,617	471,224
Total, Classes I. to XV.	11,407,243	8,578,101	2,513,368	2,409,781	1,034,255	1,283,684	27,226,432
XVI. Heat, Light and Power	742,522	170,951	283,111	401,646	165,907	112,593	1,876,730
Grand Total ..	12,149,765	8,749,052	2,796,479	2,811,427	1,200,162	1,396,277	29,103,162

In the following table particulars are given of the recorded values of land and buildings and plant and machinery in use by factories in Australia as at 30th June of the years 1939 and 1946 to 1950 and the value of additions and replacements made and depreciation allowed during each year.

VALUE OF LAND AND BUILDINGS, PLANT AND MACHINERY : AUSTRALIA.

(£'000.)

Year.	Book Values as at 30th June.(a)		Additions and Replacements during year.		Depreciation allowed during year.	
	Land and Buildings.	Plant and Machinery.	Land and Buildings.	Plant and Machinery.	Land and Buildings.	Plant and Machinery.
1938–39 ..	130,920	143,662	5,578	17,781	1,911	8,736
1945–46 ..	186,939	185,545	6,245	21,766	2,537	14,597
1946–47 ..	193,152	189,693	7,791	27,110	2,747	15,978
1947–48 ..	211,143	213,719	9,739	35,616	2,537	18,054
1948–49 ..	232,740	246,494	15,030	47,227	2,826	21,880
1949–50 ..	259,549	285,602	18,551	59,562	2,942	26,161

(a) Includes estimated value of rented premises, plant and machinery.

§ 10. Principal Factory Products.

The monthly factory production of certain commodities is shown in the monthly and quarterly publications of this Bureau and in the *Secondary Industries Bulletin.*

The following table shows the total recorded production of some of the principal articles manufactured in Australia during the years ended 30th June, 1948 to 1950. A more complete list, together with values, where available, is published in the *Secondary Industries Bulletin.*

QUANTITY OF PRINCIPAL ARTICLES PRODUCED IN FACTORIES : AUSTRALIA.

Article.	Unit of Quantity.	1947–48.	1948–49.	1949–50.
Acid—				
Nitric	Ton	3,459	3,292	6,361
Sulphuric	"	484,881	585,298	612,245
Aerated Waters	Gal.	41,067,958	44,339,018	50,190,215
Asbestos Cement Building Sheets	Sq. yd.	18,419,227	18,558,685	18,344,694
Bacon and Ham	lb.	100,848,161	92,491,310	89,946,189
Bags—				
Leather, Fibre, etc.—				
Handbags—				
Leather	No.	1,093,820	1,070,849	1,060,057
Plastic	"	148,770	344,218	502,666
Other	"	52,148	59,104	88,462
Kitbags	"	87,706	94,978	109,246
School bags	"	(a)	73,328	107,222
Suit Cases	"	728,269	661,592	683,682
Trunks	"	27,156	30,562	4,690
All other	"	310,008	457,164	611,749
Textile, Hessian, etc.	"	1,810,934	1,597,732	1,594,822
Baking Powder	lb.	1,096,029	1,004,984	929,326
Bath Heaters—				
Electric	No.	13,192	12,803	13,297
Gas	"	41,509	32,954	28,285
Solid Fuel and Oil	"	60,023	56,084	70,007
Bathing Suits	Doz.	109,048	106,710	97,731
Baths, all types	No.	81,970	158,025	172,197
Batteries, Wet Cell type	"	841,283	872,224	1,113,875
Beer (excluding Waste Beer)	Gal.	125,158,216	144,451,536	154,188,627
Biscuits	lb.	96,676,891	107,087,815	117,877,981
Blankets	Pair	721,089	689,154	895,586
Boots, Shoes and Slippers—				
Boots	"	1,763,035	1,827,995	1,813,053
Shoes	"	14,445,722	13,618,046	13,596,519
Sandals	"	1,501,791	1,772,765	1,789,141
Slippers	"	9,295,624	8,832,214	8,605,062
Bran	Ton (2,000 lb.)	308,214	318,705	273,336
Brassieres	Doz.	207,051	264,808	318,897
Bricks, Clay	'000	577,866	617,391	604,066
Brooms	Gross	26,928	17,368	19,079
Brushes	"	128,979	124,733	126,565
Butter	lb.	352,995,132	360,841,293	376,466,627
Candles	Cwt.	11,298	15,692	21,245
Cardigans, Sweaters, etc.	Doz.	515,071	568,876	598,134
Cement, Portland	Ton	1,012,911	1,031,489	1,167,189
Cheese	lb.	92,827,966	96,677,553	100,300,369
Cigarettes	"	10,147,354	9,701,036	10,341,485
Cleansing and Scouring Powders	Cwt.	79,355	73,062	62,380
Cloth—				
Cotton	Sq. yd.	23,687,667	24,669,791	33,186,695
Woollen	"	40,967,011	40,429,799	36,948,143
Coke	Ton	2,554,783	2,331,555	2,277,755
Colours—				
Dry	lb.	8,396,754	6,065,177	6,510,560
Ground in Oil	"	802,087	1,112,510	2,335,984
Confectionery—				
Chocolate	"	64,004,412	67,847,888	78,741,717
Other	"	70,670,259	68,924,928	70,743,632
Coppers—				
Electric	No.	689	24,517	29,995
Gas	"	3,586	29,980	35,548
Solid Fuel and Oil	"	3,586	78,284	110,670
Cordials	Gal.	4,295,319	4,312,573	4,523,455
Corsets and Corselets	Doz.	(a)	133,996	105,092

(a) Not available.

QUANTITY OF PRINCIPAL ARTICLES PRODUCED IN FACTORIES: AUSTRALIA—*continued*.

Article.	Unit of Quantity.	1947–48.	1948–49.	1949–50.
Cosmetic Creams and Lotions—				
Face Cream	Cwt.	5,704	5,010	4,136
Hand Lotion	"	2,176	2,326	2,251
Other	"	5,184	5,270	6,767
Custard Powder	lb.	6,131,328	8,557,120	7,134,931
Cycles	No.	105,435	91,514	96,282
Dynamos—				
Alternators	"	203	135	273
Generators	"	4,130	9,058	9,461
Electricity	'000 k.w.h.	8,359,874	9,052,943	9,508,661
Enamels	Gal.	622,233	727,953	713,643
Engines—				
Diesel, other than Marine	No.	4,119	4,425	4,598
Petrol, Marine	"	3,358	3,081	2,487
Other (*a*)	"	14,871	21,622	23,382
Essences, Flavouring—				
Domestic	Gal.	79,813	84,002	102,443
Industrial	"	130,603	144,605	179,802
Face Powder	Cwt.	2,938	2,741	2,723
Fans, Electric	No.	59,564	59,934	48,338
Fats, Edible—				
Dripping	lb.	25,077,646	24,530,463	34,543,376
Other	"	30,354,676	43,482,176	45,379,554
Fibrous Plaster Sheets	Sq. yd.	11,719,284	13,233,710	13,258,359
Firewood	Ton	398,451	364,162	310,575
Fish, Tinned	lb.	9,731,702	10,886,254	7,078,716
Floorboards—				
Australian Timber	Super. ft.	65,340,333	70,537,918	71,583,812
Imported Timber	"	6,079,242	8,780,898	11,561,728
Flour, Wheaten	Ton (2,000 lb.)	1,598,143	1,679,190	1,509,023
Flour, Self-raising	Cwt.	1,000,916	1,160,981	1,113,203
Fruit Juices	Gal.	1,365,267	1,738,759	1,573,689
Gas	'000 cubic ft.	36,549,723	36,733,420	34,897,963
Gloves—				
Dress—				
Leather	Doz. pairs	49,850	42,199	35,684
Other	"	36,986	24,022	35,754
Work, All types	"	157,992	157,230	171,611
Golf Clubs	Doz.	15,515	16,509	15,378
Handkerchiefs—				
Men's	"	671,232	877,873	818,475
Women's	"	1,047,780	922,241	827,118
Hats and Caps	"	668,463	574,317	480,789
Hose, Rubber	Lin. ft.	17,037,706	18,323,156	17,499,278
Ice	Ton	1,007,301	1,039,379	1,061,862
Ice Cream	Gal.	12,858,635	14,524,424	15,785,720
Iron and Steel—				
Pig Iron	Ton	1,235,574	1,044,957	1,097,635
Ingot Steel	"	1,344,692	1,178,010	1,217.971
Blooms and Billets	"	1,221,938	1,101,063	1,103,784
Irons, Electric	No.	253,065	208,999	178,283
Jams and Preserves—				
Jams	lb.	198,453,763	132,951,471	134,577,101
Fruit, Preserved(*b*)	"	189,050,391	187,144,716	208,384,621
Vegetables, Preserved	"	46,330,688	51,353,520	70,583,399
Jelly Crystals	"	10,083,600	11,413,654	14,001,557
Kalsomine	"	8,118,425	8,645,431	9,334,148
Lacquer, Clear and Colours	Gal.	881,319	829,971	935,090
Lard	lb.	5,739,716	5,837,557	5,465,917
Lawn Mowers—				
Electric	No.	639	8,935	23,461
Petrol	"	273	594	1,070
Hand	"	64,544	64,557	88,425
Leather—				
Sole and Belting	lb.	37,679,761	38,715,918	38,650,009
Harness, Skirt, etc.	"	2,349,825	1,956,118	1,965,573
Upholstery	Sq. ft.	8,938,966	9,672,055	10,318,195
Dressed from Hides	"	40,447,070	40,442,555	43,110,159
Dressed from Skins	"	35,878,572	31,997,234	29,310,671
Lime	Ton	160,045	172,141	184,787
Linseed Oil	Gal.	927,896	3,487,562	3,657,973
Lubricating Oil	"	5,979,943	5,825,476	9,764,779
Malt	Bus.	5,050,022	5,150,137	5,612,411
Margarine—				
Table	lb.	10,752,175	19,103,952	14,044,246
Other	"	41,888,602	46,566,385	54,261,395
Mattresses	No.	689,799	782,231	928,182
Meat, Tinned	lb.	122,080,234	114,161,624	126,263,815

(*a*) Excludes Motor Car, Motor Cycle, Tractor and Aero Engines. (*b*) Includes Canned Apple, all types.

QUANTITY OF PRINCIPAL ARTICLES PRODUCED IN FACTORIES: AUSTRALIA—*continued.*

Article.	Unit of Quantity.	1947–48.	1948–49.	1949–50.
Milk—				
Condensed	lb.	102,133,162	107,011,808	111,476,645
Concentrated (Whole)	,,	30,113,950	29,517,306	38,684,962
Powdered (Whole)	,,	45,681,635	57,981,479	71,273,882
Mops	Gross	8,224	11,150	12,968
Motor Bodies	No.	58,354	68,230	67,346
Motor Spirit (including Benzol)	Gal.	55,530,523	71,137,699	81,328,515
Motors, Electric	No.	(a)	300,854	368,878
Nails	Ton	20,324	19,442	17,808
Neckties	Doz.	514,618	486,659	430,758
Oatmeal	Cwt.	679,217	460,314	432,667
Paint—				
Water	lb.	10,335,684	11,017,659	16,209,221
Oil	Gal.	3,495,472	3,695,583	3,960,418
Peanut Butter	lb.	3,231,477	3,864,462	3,737,370
Perambulators	No.	121,556	106,711	107,420
Pickles	Pint	8,774,890	8,464,087	9,427,463
Plywood, $\frac{3}{16}$ inch	Sq. ft.	139,077,009	146,284,627	157,033,067
Pollard	Ton (2,000 lb.)	326,189	354,957	316,795
Pyjamas—				
Men's	Doz.	159,204	219,072	212,606
And Nightdresses, Women's	,,	180,558	270,214	275,617
Refrigerators—				
Commercial	No.	4,797	4,086	5,016
Domestic	,,	112,349	146,074	150,878
Rice (Dressed)	Cwt.	668,294	672,498	707,652
Ropes and Cables	,,	125,699	117,215	117,804
Sauce	Pint	30,727,855	32,301,074	32,299,843
Sausage Casings	Cwt.	75,948	83,786	94,057
Semolina	,,	166,952	248,984	275,013
Shirts	Doz.	800,388	880,045	904,787
Sink Heaters	No.	(a)	18,556	22,434
Soap—				
Household	Cwt.	599,144	651,031	599,422
Flakes and Chips	,,	48,698	59,484	52,562
Industrial	,,	58,431	99,235	79,927
Sand	,,	63,293	51,088	44,981
Toilet	,,	269,526	274,259	267,793
Soft	,,	23,458	20,199	19,561
Liquid	,,	81,828	88,274	84,503
Shampoo	,,	6,396	8,831	9,173
Soap Extracts and Powders	,,	529,971	609,631	697,848
Socks and Stockings—				
Men's	Doz. pr.	1,264,373	1,275,403	1,158,630
Women's	,,	1,567,448	1,536,549	1,708,647
Children's	,,	717,724	705,059	656,936
Soup (Tinned)	Pint	21,102,041	42,032,297	32,611,448
Spades and Shovels	Doz.	33,854	31,472	33,394
Starch—				
Edible	Cwt.	113,640	159,391	279,350
Inedible	,,	101,302	81,769	87,752
Steel, Structural, Fabricated	Ton	86,043	77,942	74,909
Stoves, Ovens and Ranges—				
Domestic Cooking—				
Solid Fuel	No.	53,257	61,434	61,857
Gas	,,	39,706	49,556	46,709
Electric	,,	98,584	101,230	103,042
Sugar—				
Raw	Ton	605,254	943,052	937,119
Refined	,,	435,584	428,269	422,675
Sulphate of Ammonia	,,	39,489	53,247	48,736
Superphosphate	,,	1,186,062	1,423,137	1,483,458
Talcum Powder	Cwt.	24,178	23,015	25,112
Tallow—				
Raw	,,	655,043	710,532	742,425
Refined	,,	296,967	320,064	418,858
Tennis Racquet Frames	Doz.	30,788	23,677	19,950
Tiles, Roofing—				
Cement	'000	20,280	28,294	40,638
Terra Cotta	,,	41,790	44,162	45,415
Timber—				
From Native Logs—				
Hardwood	'000 super. ft.	844,493	907,704	965,142
Softwood	,,	272,820	276,384	257,918
From Imported Logs—				
Hardwood	,,	2,167	1,028	1,820
Softwood	,,	5,448	10,362	18,629
Toasters, Electric	No.	140,725	148,273	175,054

(a) Not available

QUANTITY OF PRINCIPAL ARTICLES PRODUCED IN FACTORIES: AUSTRALIA—*continued.*

Article.	Unit of Quantity.	1947–48.	1948–49.	1949–50.
Tobacco	lb.	19,715,123	19,255,654	20,167,710
Tomato Juice	Gal.	1,952,310	1,845,620	741,995
Towels	Doz.	367,440	389,218	418,283
Transformers and Converters—				
Above 20 k.v.a.	No.	1,701	1,940	2,560
Below 20 k.v.a.	,,	345,909	252,359	226,984
Twine (all types)	Cwt.	184,524	82,190	83,186
Tyres—				
Motor Car and Motor Cycle	No.	1,190,453	1,133,893	1,339,072
Truck and Omnibus	,,	469,975	511,766	535,262
All Other	,,	1,506,745	1,144,346	1,022,204
Umbrellas	,,	173,824	206,399	262,655
Underwear	Doz.	3,056,152	3,168,274	3,528,415
Vacuum Cleaners	No.	85,779	65,721	70,604
Varnishes	Gal.	2,631,356	2,919,865	3,266,364
Washing Machines, Household, Electric	No.	15,217	6,528	31,638
Weatherboards—				
Australian Timber	Super. ft.	16,696,443	17,896,553	21,116,400
Imported Timber	,,	2,121,787	2,478,729	2,847,158
Wheatmeal	Ton	44,870	84,889	98,234
Wheelbarrows (Metal)	No.	45,808	51,212	71,603
Wire and Wire Netting	Ton	111,028	107,816	123,984
Wireless—				
Cabinets—				
Wood	No.	113,992	81,922	75,895
Other	,,	28,749	30,699	204,999
Receiving Sets	,,	335,208	294,119	343,323
Wool Scoured—				
For Sale	lb.	47,064,737	42,751,608	50,558,731
For use in own works	,,	47,877,113	44,037,636	40,442,714
On Commission	,,	82,238,081	75,325,083	80,778,589
Yarn—				
Cotton	,,	27,470,608	27,094,903	27,313,346
Woollen	,,	23,322,125	22,391,578	23,622,103
Worsted	,,	28,227,700	28,291,678	25,828,986
Zinc Oxide	Cwt.	251,935	254,797	239,462
Zinc Oxide Paste	,,	21,480	19,930	19,101

§ 11. Individual Industries.

1. **General.**—Particulars in pages 1089–1118, §§ 2–9 afford a general view of the magnitude of industries in the sixteen groups adopted by the Conference of Statisticians in 1930. While it is not possible, within the limits of this work, to give a detailed account of each industry, particular industries dealt with hereunder are of special importance because of the employment which they provide for labour and capital or for other features of special interest. Where there are only one or two establishments in a particular industry in the State or the Commonwealth, details of activities are not published, but are combined with some other factory group so that operations of individual concerns will not be disclosed.

Details of some of the principal articles produced in factories in Australia during the years 1947–48 to 1949–50 are shown in the table in the preceding pages (§ 10).

2. **Portland Cement and Cement Goods.**—The manufacture of portland cement and cement goods is an important industry included in Class I. Particulars for the three industries under this general heading are shown for 1949–50 in the following table.

PORTLAND CEMENT, ASBESTOS CEMENT SHEETS ETC., AND OTHER CEMENT GOODS: AUSTRALIA, 1949–50.

Items.		Portland Cement.	Asbestos Cement Sheets and Mouldings.	Other Cement Goods.	Total.
Number of factories		11	14	425	450
Number of persons employed		2,152	1,946	3,935	8,033
Value of land and buildings ..	£	932,060	378,548	972,134	2,282,742
Value of plant and machinery ..	£	2,415,503	362,199	1,192,198	3,969,900
Salaries and wages paid	£	1,048,476	970,182	1,654,028	3,672,686
Value of power, fuel, etc., used ..	£	1,322,734	56,258	64,893	1,443,885
Value of materials used	£	1,949,178	1,919,643	2,802,345	6,671,166
Total value of output	£	5,421,613	3,465,498	5,767,721	14,654,832
Value of production	£	2,149,701	1,489,597	2,900,483	6,539,781

The principal articles produced in factories included in the foregoing table during 1949–50 were :—Portland cement 1,167,189 tons, valued at £5,400,048 ; Asbestos cement building sheets 18,344,694 square yards, £2,380,216 ; cement roofing tiles 39,082,000, £1,047,867 ; cement bricks and blocks £434,187 ; concrete pipes £1,549,756 ; ready-mixed concrete 296,361 cubic yards, £927,699.

3. **Chemicals, Drugs and Medicines.**—In 1945–46 the classification of factories was amended to provide for the separate tabulation of factories engaged in the production of Industrial and Heavy Chemicals and Acids and those engaged in producing Pharmaceutical and Toilet Preparations, which previously had been combined. Details for each of these industries are given in the next two tables for 1949–50. However, it should be noted that in order to avoid the publication of confidential information, particulars relating to Industrial and Heavy Chemicals include details for the Explosives industry.

INDUSTRIAL AND HEAVY CHEMICALS AND ACIDS (INCLUDING EXPLOSIVES), 1949–50.

Items.		N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Number of factories		101	66	17	7	7	1	199
Number of persons employed ..		3,529	4,517	(a)	1,242	(a)	(a)	9,749
Value of land and buildings	£	1,779,755	3,920,886	(a)	4,828,712	(a)	(a)	10,695,857
Value of plant and machinery	£	2,597,050	4,890,763	(a)	1,863,026	(a)	(a)	9,707,749
Salaries and wages paid	£	1,860,671	2,233,047	(a)	601,973	(a)	(a)	4,889,942
Value of power, fuel, etc., used	£	445,264	336,737	(a)	215,997	(a)	(a)	1,063,924
Value of materials used	£	5,671,514	4,152,578	(a)	348,199	(a)	(a)	10,521,896
Total value of output	£	10,340,903	8,098,980	(a)	1,423,077	(a)	(a)	20,660,937
Value of production ..	£	4,224,125	3,609,665	(a)	858,881	(a)	(a)	9,075,117

(a) Not available for publication ; included with total for Australia.

PHARMACEUTICAL AND TOILET PREPARATIONS, 1949–50.

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W.Aust.	Tas.	Australia.
Number of factories	130	49	5	11	7	3	205
Number of persons employed ..	2,974	1,454	87	(a)	(a)	(a)	5,157
Value of land and buildings £	1,040,303	469,583	18,542	(a)	(a)	(a)	1,705,906
Value of plant and machinery £	373,283	309,519	4,636	(a)	(a)	(a)	767,208
Salaries and wages paid £	1,052,811	546,407	29,267	(a)	(a)	(a)	1,839,900
Value of power, fuel, etc., used £	30,036	23,555	1,078	(a)	(a)	(a)	72,690
Value of materials used £	3,383,631	2,239,114	85,506	(a)	(a)	(a)	6,370,831
Total value of output £	7,917,226	3,965,171	128,758	(a)	(a)	(a)	13,009,957
Value of production .. £	4,503,559	1,702,502	42,174	(a)	(a)	(a)	6,566,436

(a) Not available for publication; included with total for Australia.

4. **White Lead, Paint and Varnish.**—(i) *Details for each State.* The following table shows particulars of this industry for each State during 1949–50 :—

WHITE LEAD, PAINT AND VARNISH FACTORIES, 1949–50.

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W.Aust.	Tas.	Australia.
Number of factories	64	51	12	14	7	1	149
Number of persons employed ..	2,836	1,027	200	400	(a)	(a)	4,526
Value of land and buildings £	1,091,049	627,594	62,555	211,579	(a)	(a)	2,037,916
Value of plant and machinery £	674,495	450,985	46,335	150,810	(a)	(a)	1,344,632
Salaries and wages paid £	1,329,250	483,524	82,146	175,812	(a)	(a)	2,096,891
Value of power, fuel, etc., used £	126,269	30,946	2,691	9,525	(a)	(a)	170,815
Value of materials used £	6,201,736	2,792,853	565,608	1,152,394	(a)	(a)	10,902,742
Total value of output £	9,402,723	4,181,111	752,416	1,748,670	(a)	(a)	16,369,535
Value of production .. £	3,074,718	1,357,312	184,117	586,751	(a)	(a)	5,295,978

(a) Not available for publication; figures are included in the total for Australia.

(ii) *Total for Australia.* The next table shows particulars for the years 1945–46 to 1949–50 compared with 1938–39 :—

WHITE LEAD, PAINT AND VARNISH FACTORIES: AUSTRALIA.

Items.	1938–39.	1945–46.	1946–47.	1947–48.	1948–49.	1949–50.
Number of factories	102	122	133	143	152	149
Number of persons employed ..	2,271	3,197	3,612	3,980	4,240	4,526
Value of land and buildings £	761,345	973,166	1,064,876	1,474,227	1,594,771	2,037,916
Value of plant and machinery £	324,222	524,065	602,967	882,794	989,143	1,344,632
Salaries and wages paid £	535,014	1,005,121	1,243,482	1,565,684	1,797,275	2,096,891
Value of power, fuel, etc., used £	44,992	80,675	94,115	109,255	127,297	170,815
Value of materials used £	2,275,027	4,775,075	5,950,115	8,155,047	9,048,001	10,902,742
Total value of output £	3,905,104	7,304,167	9,233,244	12,240,763	13,550,950	16,369,535
Value of production £	1,585,085	2,448,417	3,189,014	3,976,461	4,375,652	5,295,978

5. **Soap and Candle Factories.**—(i) *Details for each State.* The following table shows particulars of factories in the soap and candle industry in each State for 1949–50 :—

SOAP AND CANDLE FACTORIES, 1949–50.

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W.Aust.	Tas.	Australia.
Number of factories	47	19	10	6	4	4	90
Number of persons employed ..	2,227	773	355	193	82	16	3,646
Value of land and buildings £	572,751	332,393	59,728	91,601	38,645	20,087	1,115,205
Value of plant and machinery £	500,343	540,615	43,242	89,346	24,558	3,234	1,201,338
Salaries and wages paid £	972,888	382,592	136,937	80,035	26,499	5,886	1,604,837
Value of power, fuel, etc., used £	108,297	154,636	8,178	9,738	3,155	658	284,662
Value of materials used £	3,243,567	1,609,856	271,230	217,051	135,834	21,284	5,498,822
Total value of output £	6,240,160	2,927,453	492,093	319,762	207,043	39,146	10,225,657
Value of production .. £	2,888,296	1,162,961	212,685	92,973	68,054	17,204	4,442,173

(ii) *Total for Australia.* The next table shows similar particulars for the years 1945–46 to 1949–50 compared with 1938–39 :—

SOAP AND CANDLE FACTORIES : AUSTRALIA.

Items.		1938–39.	1945–46.	1946–47.	1947–48.	1948–49.	1949–50.
Number of factories ..	..	65	73	79	88	91	90
Number of persons employed	..	2,620	3,020	3,181	3,204	3,578	3,646
Value of land and buildings	£	665,546	676,405	705,060	709,054	715,160	1,115,205
Value of plant and machinery	£	576,732	372,940	376,810	398,057	517,916	1,201,338
Salaries and wages paid	£	501,174	860,354	946,193	1,123,933	1,461,066	1,604,837
Value of power, fuel, etc., used	£	76,283	123,250	127,517	172,844	258,505	284,662
Value of materials used	£	1,567,999	3,051,046	3,062,673	4,295,165	5,277,026	5,498,822
Total value of output	£	3,529,723	5,801,953	5,904,437	7,402,849	9,351,668	10,225,657
Value of production ..	£	1,885,441	2,627,657	2,714,247	2,934,840	3,816,137	4,442,173

(iii) *Materials Used and Production.* The following statement shows the quantities of certain materials used and the production in soap and candle factories in Australia for the years 1945–46 to 1949–50 compared with 1938–39 :—

SOAP AND CANDLE FACTORIES : MATERIALS USED AND PRODUCTION, AUSTRALIA.

Particulars.		1938–39.	1945–46.	1946–47.	1947–48.	1948–49.	1949–50.
Tallow used ..	cwt.	535,511	834,057	768,939	893,826	972,474	994,011
Alkali used ..	,,	229,881	160,304	153,036	156,042	177,162	170,470
Coconut oil used—refined and unrefined	cwt.	138,954	86,576	57,191	80,518	98,751	78,261
Soap(*a*)	,,	978,113	1,065,439	1,046,826	1,150,774	1,149,868	1,174,605
Soap Extracts and Powders	,,	191,232	469,865	432,051	529,971	609,631	697,848
Candles made ..	,,	27,459	23,194	10,539	11,298	13,619	21,245

(*a*) Soap made in all factories including those not classified as "Soap and Candles" factories.

The output for the year 1949–50 comprised the following quantities of soap :—Household, 599,422 cwt. ; Flakes and Chips, Household, 52,562 cwt. ; Flakes and Chips, Industrial, 7,688 cwt. ; Sand, 44,981 cwt. ; Toilet and Hand, 267,793 cwt. ; Shaving (including Sticks and Creams), 8,995 cwt. ; Industrial, 79,927 cwt. ; Soft, 19,561 cwt. ; Liquid, 84,503 cwt. ; Shampoo (Powder), 577 cwt. ; Shampoo (liquid), 8,596 cwt. ; Soap Extract and Powders—Household, 686,288 cwt., Industrial, 11,560 cwt. This includes 168,580 cwt. of soap made in establishments not classified as Soap and Candle Factories.

6. **Chemical Fertilizers.**—(i) *Details for each State.* The following table shows particulars of the factories engaged in the manufacture of chemical fertilizers in each State during 1949–50. Details of the consumption, imports and exports of fertilizers will be found in Chapter XX.—Agricultural Production.

CHEMICAL FERTILIZERS, 1949–50.

Items.		N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Number of factories ..	..	14	9	7	7	6	8	51
Number of persons employed	..	782	1,246	252	799	730	80	3,889
Value of land and buildings	£	1,984,387	577,699	89,375	346,262	589,485	46,072	3,633,280
Value of plant and machinery	£	2,079,925	1,061,668	125,452	710,777	823,295	48,060	4,849,177
Salaries and wages paid	£	406,858	702,840	120,310	394,696	372,935	52,887	2,050,526
Value of power, fuel, etc., used	£	133,326	107,058	7,661	55,984	101,147	2,184	407,360
Value of materials used	£	1,427,177	4,715,393	1,042,210	1,913,089	3,165,087	474,048	12,737,004
Total value of output	£	2,151,962	6,461,135	1,282,781	2,613,691	4,029,784	602,563	17,141,916
Value of production ..	£	591,459	1,638,684	232,910	644,618	763,550	126,331	3,997,552

(ii) *Total for Australia.* The development of this industry since 1938–39 is set out hereunder :—

CHEMICAL FERTILIZERS : AUSTRALIA.

Items.		1938–39.	1945–46.	1946–47.	1947–48.	1948–49.	1949–50.
Number of factories ..	..	36	38	39	47	50	51
Number of persons employed	..	2,540	3,127	3,459	3,621	3,894	3,889
Value of land and buildings	£	1,449,157	1,571,948	1,617,318	1,721,533	3,511,219	3,633,280
Value of plant and machinery	£	2,352,819	2,409,368	2,396,536	2,856,957	4,781,939	4,849,177
Salaries and wages paid	£	601,477	1,091,275	1,283,817	1,549,197	1,846,614	2,050,526
Value of power, fuel, etc., used	£	113,749	181,418	205,302	269,605	371,718	407,360
Value of materials used	£	3,231,053	7,898,493	8,288,987	9,958,424	11,909,725	12,737,004
Total value of output	£	4,944,800	10,046,710	10,577,165	13,107,526	15,681,118	17,141,916
Value of production ..	£	1,599,998	1,966,799	2,082,876	2,879,497	3,399,675	3,997,552

7. **Iron and Steel Works and Engineering.**—(i) *General.* In 1945–46 the classification of factories was amended to provide for the tabulation in four separate groups of those industries previously included under Iron and Steel and Engineering. The first group (Smelting, Converting, Refining and Rolling of Iron and Steel) covers blast furnaces, steel works and rolling mills. The second group, Foundries (Ferrous), covers those engaged in the founding of iron and steel. The third group (Plant, Equipment and Machinery including Machine Tools) covers those industries engaged in the production of boilers, engines, machines and machinery, machine tools, structural steel fabrications, steel furniture, etc. The fourth group (Other Engineering) includes jobbing and general engineers, not elsewhere included.

(ii) *Smelting, Converting, Refining and Rolling of Iron and Steel.* In the following table particulars are shown for 1949–50 for each State for the group Smelting, Converting, Refining and Rolling of Iron and Steel.

SMELTING, CONVERTING, REFINING AND ROLLING OF IRON AND STEEL, 1949–50.

Items.		N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Number of factories ..	..	16	10	..	3	1	..	30
Number of persons employed	..	10,226	(a)	..	(a)	(a)	..	11,509
Value of land and buildings	£	2,535,573	(a)	..	(a)	(a)	..	2,812,372
Value of plant and machinery	£	6,602,909	(a)	..	(a)	(a)	..	7,185,284
Salaries and wages paid	£	6,228,555	(a)	..	(a)	(a)	..	6,978,049
Value of power, fuel, etc., used	£	4,768,296	(a)	..	(a)	(a)	..	5,515,501
Value of materials used	£	28,938,219	(a)	..	(a)	(a)	..	29,747,222
Total value of output	£	45,312,832	(a)	..	(a)	(a)	..	48,046,988
Value of production ..	£	11,606,317	(a)	..	(a)	(a)	..	12,784,265

(a) Not available for publication ; figures are included in the total for Australia.

(iii) *Foundries (Ferrous).* Particulars covering those industries classified as founding of iron and steel are shown for each State for 1949–50 in the following table :—

FOUNDRIES (FERROUS), 1949–50.

Items.		N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Number of factories ..	..	93	201	23	19	17	..	353
Number of persons employed	..	2,650	2,248	550	435	463	..	6,346
Value of land and buildings	£	490,446	521,987	77,698	37,311	79,655	..	1,207,097
Value of plant and machinery	£	424,828	423,710	82,145	59,223	72,758	..	1,062,664
Salaries and wages paid	£	1,299,252	1,058,183	233,112	200,405	194,045	..	2,984,997
Value of power, fuel, etc., used	£	129,919	128,487	19,382	24,132	38,558	..	340,478
Value of materials used	£	825,032	862,255	166,879	119,172	142,839	..	2,116,177
Total value of output	£	3,060,501	2,625,570	540,018	419,017	459,456	..	7,104,562
Value of production ..	£	2,105,550	1,634,828	353,757	275,713	278,059	..	4,647,907

(iv) *Plant, Equipment and Machinery including Machine Tools.* In the next table particulars are shown for 1949–50 for those factories included in the third group mentioned previously.

PLANT, EQUIPMENT AND MACHINERY (INCLUDING MACHINE TOOLS), 1949–50.

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W.Aust.	Tas.	Australia.
Number of factories	748	499	93	97	61	..	1,498
Number of persons employed ..	26,746	16,943	4,968	5,928	1,759	..	56,344
Value of land and buildings £	6,239,583	4,335,911	653,642	1,035,926	414,703	..	12,679,765
Value of plant and machinery £	6,056,165	4,105,708	709,610	1,210,678	428,758	..	12,510,919
Salaries and wages paid £	12,655,899	8,213,668	2,036,878	2,863,590	724,740	..	26,494,775
Value of power, fuel, etc., used £	475,770	331,576	81,622	145,143	41,394	..	1,075,505
Value of materials used £	18,353,274	12,490,654	2,269,988	4,498,247	844,490	..	38,456,653
Total value of output £	38,095,732	26,086,387	5,338,279	8,983,155	1,986,365	..	80,489,918
Value of production .. £	19,266,688	13,264,157	2,986,669	4,339,765	1,100,481	..	40,957,760

(v) *Other Engineering.* Details covering jobbing and general engineering works not elsewhere included are shown for each State for 1949–50 in the following table.

OTHER ENGINEERING, 1949–50.

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W Aust.	Tas.	Australia.
Number of factories	566	530	98	125	100	76	1,495
Number of persons employed ..	4,399	6,913	1,421	2,441	534	1,090	16,798
Value of land and buildings £	2,092,757	1,843,029	272,927	380,639	144,520	367,095	5,100,967
Value of plant and machinery £	935,881	1,561,140	225,428	429,296	94,065	269,541	3,515,351
Salaries and wages paid £	1,665,317	3,149,632	547,843	982,579	176,111	455,845	6,977,327
Value of power, fuel, etc., used £	65,841	98,410	15,070	33,335	10,349	17,517	240,522
Value of materials used £	1,695,868	2,835,334	533,421	946,693	266,772	358,510	6,636,598
Total value of output £	4,759,790	7,768,892	1,330,224	2,460,188	594,159	1,050,347	17,963,600
Value of production .. £	2,998,081	4,835,148	781,733	1,480,160	317,038	674,320	11,086,480

8. **Extracting and Refining of Non-ferrous Metals ; Alloys.**—(i) *Details for each State.* The following table shows particulars of establishments engaged in metal extraction and ore reduction including secondary recovery of metals, but excludes blast furnaces engaged in production of pig iron from iron ore.

EXTRACTING AND REFINING OF NON-FERROUS METALS ; ALLOYS, 1949–50.

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W.Aust. (a)	Tas.	Australia.
Number of factories	28	17	11	3	..	3	62
Number of persons employed ..	1,863	180	951	(b)	..	(b)	7,394
Value of land and buildings £	487,012	81,535	319,769	(b)	..	(b)	1,861,254
Value of plant and machinery £	1,475,986	26,035	1,009,802	(b)	..	(b)	4,605,203
Salaries and wages paid £	1,131,224	106,636	461,209	(b)	..	(b)	4,324,331
Value of power, fuel, etc., used £	623,396	15,400	169,306	(b)	..	(b)	1,907,881
Value of materials used £	16,263,781	1,001,432	3,116,134	(b)	..	(b)	38,993,366
Total value of output £	21,745,633	1,264,732	7,256,484	(b)	..	(b)	56,618,997
Value of production .. £	4,858,456	247,900	3,971,044	(b)	..	(b)	15,717,750

(a) In Western Australia the majority of the plants are worked at the mines and are therefore not included. (b) Not available for publication ; figures are included in the total for Australia.

(ii) *Total for Australia.* The development of this industry since 1938–39 is set out hereunder :—

EXTRACTING AND REFINING OF NON-FERROUS METALS ; ALLOYS : AUSTRALIA.

Items.		1938–39.	1945–46.	1946–47.	1947–48.	1948–49.	1949–50.
Number of factories ..	..	42	49	51	54	56	62
Number of persons employed	..	5.532	6,060	6,597	6,843	7,040	7,394
Value of land and buildings	£	1,177,348	1,384,721	1,577,706	1,461,458	1,648,983	1,861,254
Value of plant and machinery	£	3,525,659	3,795,038	3,680,348	3,833,901	4,266,759	4,605,203
Salaries and wages paid	£	1,613,107	2,279.972	2,856,150	3,379,030	3,919,107	4,324,331
Value of power, fuel, etc., used	£	597,951	1,057,934	1,160,337	1,358,463	1,711,969	1,907,881
Value of materials used	£	16,844,310	18,042,070	26,806,144	30.757.008	41,487,792	38,993,366
Total value of output	£	21,333.872	24,626,910	37,406,311	42,779,193	59,231,273	56,618,997
Value of production ..	£	3,891,611	5,526,906	9,433,830	10,663,722	16,031,512	15,717,750

9. **Electrical Machinery, Cables and Apparatus.**—(i) *Details for Each State.* The following table shows particulars of this industry for each State during 1949–50 :—

ELECTRICAL MACHINERY, CABLES AND APPARATUS, 1949–50.

Items.		N.S.W.	Victoria.	Q'land.	S. Aust.	W.Aust.	Tas.	Australia.
Number of factories ..	..	390	238	46	57	63	17	811
Number of persons employed	..	20,977	7,178	853	1,080	729	139	30,956
Value of land and buildings	£	4,181,067	1,532,387	149,955	203,974	169,608	56,027	6,293,018
Value of plant and machinery	£	2,740,259	1,099,824	100,388	91,604	56,089	38,988	4,127,152
Salaries and wages paid	£	9,354,845	3,172,695	329,262	391,173	262,185	53,300	13,563,460
Value of power, fuel, etc., used	£	321,060	97,629	7,803	15,506	9,270	2,318	453,586
Value of materials used	£	14,685,921	4,964,411	493,431	549,886	365,040	90,484	21,149,173
Total value of output	£	29,678,060	9,900,113	979,498	1,214,520	795,188	189,004	42,756,383
Value of production ..	£	14,671,079	4,838,073	478,264	649,128	420,878	96,202	21,153,624

(ii) *Total for Australia.* The increased output of electrical energy in Australia within recent years, referred to in par. 39 below, caused a corresponding demand for electrical equipment. Difficulties, due to war, in obtaining electrical equipment from abroad have been responsible for considerable development in the manufacture of electrical goods and equipment in Australia, as shown in the following table.

ELECTRICAL MACHINERY, CABLES AND APPARATUS : AUSTRALIA.

Items.		1938–39.	1945–46.	1946–47.	1947–48.	1948–49.	1949–50.
Number of factories ..	..	360	551	658	732	791	811
Number of persons employed	..	10,666	22,825	25,077	27.579	29,961	30,956
Value of land and buildings	£	1,627,183	3,507,375	3,950.804	4,488,206	5,382,287	6,293,018
Value of plant and machinery	£	896,553	2,084,018	2,524,818	2,957,963	3,664,289	4,127,152
Salaries and wages paid	£	2,031,098	6,301,035	7,455,375	9,454,291	11,703,047	13,563,460
Value of power, fuel, etc., used	£	104,594	208,729	244,384	291,417	365,925	453,586
Value of materials used	£	3,195,032	8,085,443	10,467,524	14,310,252	16,510,308	21,149,173
Total value of output	£	6,954,498	17,789,829	21,996.743	27,891,275	34,710,482	42,756,383
Value of production ..	£	3,654,872	9,495,657	11,284,835	13,289,606	17,834,249	21,153,624

10. **Railway and Tramway Workshops.**—(i) *Details for each State*, 1949–50. The railway and tramway workshops, which form an important item in Class IV., are chiefly owned by State Governments and Local Authorities. Workshops (fourteen in 1949–50) controlled by non-public bodies are not included in the figures below :—

TRAMCARS AND RAILWAY ROLLING STOCK(*a*), 1949–50.

Items.		N.S.W.	Victoria.	Q'land.	S. Aust.	W.Aust.	Tas.	Australia.
Number of factories		48	25	11	14	22	7	127
Number of persons employed ..		17,402	6,655	5,945	4,184	3,429	817	38,432
Value of land and buildings	£	3,990,737	1,425,227	570,003	1,165,227	522,751	376,700	8,050,645
Value of plant and machinery	£	4,804,012	477,466	507,507	1,163,021	670,975	295,874	7,924,855
Salaries and wages paid	£	8,300,753	3,082,342	2,958,527	1,957,607	1,393,097	364,774	18,057,100
Value of power, fuel, etc., used	£	188,908	90,619	63,832	91,473	51,938	13,019	499,789
Value of materials used	£	4,882,774	2,244,402	1,515,775	1,126,615	1,205,558	157,612	11,132,736
Total value of output	£	14,971,196	6,409,097	4,889,912	3,500,786	2,915,740	588,945	33,275,676
Value of production ..	£	9,899,514	4,074,076	3,310,305	2,282,698	1,658,244	418,314	21,643,151

(*a*) Government and Local Authority only.

A railway workshop in the Northern Territory is chiefly engaged in making repairs to rolling stock, etc., no new goods being manufactured. Particulars of this establishment are not included in any of the tables in this chapter.

(ii) *Total for Australia*. The following table shows the development of railway and tramway workshops in Australia since 1938–39 :—

TRAMCARS AND RAILWAY ROLLING STOCK(*a*) : AUSTRALIA.

Items.		1938–39.	1945–46.	1946–47.	1947–48.	1948–49.	1949–50.
Number of factories		117	115	115	128	128	127
Number of persons employed ..		27,310	36,962	37,347	37,496	37,993	38,432
Value of land and buildings	£	6,736,924	6,960,491	7,081,749	7,513,508	7,773,371	8,050,645
Value of plant and machinery	£	5,390,179	6,034,499	5,047,990	6,525,018	7,206,190	7,924,855
Salaries and wages paid	£	6,720,990	11,656,718	12,051,200	14,297,402	16,357,427	18,057,100
Value of power, fuel, etc., used	£	226,108	371,865	370,715	371,626	449,808	499,789
Value of materials used	£	4,976,353	8,143,346	8,131,925	9,074,372	9,533,164	11,132,736
Total value of output	£	13,223,114	22,308,803	22,773,668	26,833,047	29,247,553	33,275,676
Value of production ..	£	8,020,653	13,793,592	14,271,028	17,387,049	19,264,581	21,643,151

(*a*) Government and Local Authority only.

11. **Motor Vehicles.**—The industries catering for the motor trade are included in Class IV., Industrial Metals, Machines and Conveyances. In the table below a summary is given of the principal statistics for 1949–50 for each branch of industry associated with the motor trade of Australia.

MOTOR VEHICLES : CONSTRUCTION, ASSEMBLY, REPAIRS, ETC. : AUSTRALIA, 1949–50.

Items.		Construction and Assembly.	Motor Bodies.	Repairs.	Motor Accessories.	Total.
Number of factories		72	476	4,649	133	5,330
Number of persons employed		11,357	16,168	35,228	5,121	67,874
Value of land and buildings ..	£	2,213,264	2,889,726	12,502,337	1,105,357	18,800,684
Value of plant and machinery ..	£	2,011,042	2,083,887	4,111,716	1,250,985	9,463,630
Salaries and wages paid ..	£	5,902,890	7,546,906	12,860,832	2,375,170	28,685,798
Value of power, fuel, etc., used ..	£	181,935	202,737	388,332	121,882	894,886
Value of materials used	£	4,722,019	11,387,830	13,889,204	2,427,906	32,426,959
Total value of output	£	15,737,004	21,918,822	34,376,522	6,380,661	78,413,009
Value of production	£	10,833,050	10,328,255	20,098,986	3,830,873	45,091,164

In the next table similar details are shown on a State basis for these branches combined.

MOTOR VEHICLES: CONSTRUCTION, ASSEMBLY, REPAIRS, ETC., 1949–50.

Items.		N.S.W.	Victoria.	Q'land.	S. Aust.	W.Aust.	Tas. (a)	Australia.
Number of factories ..	..	2,026	1,520	728	360	491	205	5,330
Number of persons employed ..		20,759	23,372	7,168	10,917	4,232	1,426	67,874
Value of land and buildings	£	7,268,387	6,135,190	1,689,665	1,783,147	1,297,251	627,044	18,800,684
Value of plant and machinery	£	2,799,503	3,491,748	732,001	1,733,620	579,415	127,343	9,463,630
Salaries and wages paid	£	8,247,080	10,777,670	2,461,871	5,135,744	1,579,261	484,172	28,685,798
Value of power, fuel, etc., used	£	255,125	332,667	78,416	158,716	59,404	10,558	894,886
Value of materials used	£	9,174,626	10,898,989	2,568,542	7,194,432	2,114,781	475,589	32,426,959
Total value of output	£	22,583,442	27,579,554	7,698,065	14630700	4,701,511	1,219,737	78,413,009
Value of production ..	£	13,153,691	16,347,898	5,051,107	7,277,552	2,527,326	733,590	45,091,164

(a) Includes horse-drawn vehicles.

The table below shows the output of motor bodies together with the number imported into Australia for 1938–39 and the years 1944–45 to 1949–50:—

MOTOR BODIES (a): PRODUCTION AND IMPORTS, AUSTRALIA.

Items.		1938–39.	1944–45.	1945–46.	1946–47.	1947–48.	1948–49.	1949–50.
Motor Bodies—								
Number made ..	No.	79,436	22,805	19,473	45,374	58,354	68,230	67,346
Value	£	6,421,142	2,530,043	2,356,778	5,690,715	9,209,651	12,144,871	14,018,846
Number imported	No.	532	6	223	742	13,724	34,728	115,484
Value	£	64,571	1,295	34,050	148,999	2,174,214	5,568,321	17,994,107

(a) Excludes sidecars.

In the next table particulars are given of the number and value of motor chassis imported into Australia for the years shown.

MOTOR CHASSIS: IMPORTS, AUSTRALIA.

Items.		1938–39.	1944–45.	1945–46.	1946–47.	1947–48.	1948–49.	1949–50.
Number imported	No.	76,094	6,660	10,113	66,785	66,832	101,664	187,363
Value	£	7,315,321	3,153,608	1,879,046	11,479,744	15,180,490	23,635,835	44,965,481

12. **Agricultural Machines and Implements.**—(i) *General.* Owing to the extensive agricultural activities conducted in Australia and the demand for modern mechanized farm equipment, the manufacture of agricultural implements constitutes an important branch of Australian industry. The articles manufactured include a wide range of implements for tillage, seeding and planting and the harvesting of crops. Other farm machinery made includes windmills, chaff-cutters and machinery used in the dairying industry.

(ii) *Details for States.* The following table shows details of agricultural implement works in each State for 1949–50:—

AGRICULTURAL MACHINES AND IMPLEMENTS, 1949–50.

Items.		N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Number of factories ..	..	64	72	24	31	17	..	208
Number of persons employed ..		1,918	5,578	1,369	1,345	244	..	10,454
Value of land and buildings	£	471,300	1,255,510	168,257	172,844	133,417	..	2,201,328
Value of plant and machinery	£	295,888	1,501,751	137,054	246,819	33,836	..	2,215,348
Salaries and wages paid	£	948,080	2,798,859	542,922	623,768	98,242	..	5,011,871
Value of power, fuel, etc., used	£	34,086	180,926	22,646	52,343	1,954	..	291,955
Value of materials used	£	1,213,454	4,286,694	674,225	678,777	57,208	..	6,910,358
Total value of output	£	2,606,923	8,348,522	1,461,527	1,565,115	203,319	..	14,185,406
Value of production ..	£	1,359,383	3,880,902	764,656	833,095	144,157	..	6,983,093

(iii) *Total for Australia.* Comparative statistics for 1938–39 and the years 1945–46 to 1949–50 are shown hereunder :—

AGRICULTURAL MACHINES AND IMPLEMENTS : AUSTRALIA.

Items.		1938–39.	1945–46	1946–47.	1947–48.	1948–49.	1949–50.
Number of factories ..	..	161	172	181	186	196	208
Number of persons employed	..	6,563	9,510	8,743	9,185	9,629	10,454
Value of land and buildings	£	996,949	1,199,952	1,251,975	1,530,940	1,912,806	2,201,328
Value of plant and machinery	£	910,520	1,229,597	1,232,482	1,625,335	1,938,236	2,215,348
Salaries and wages paid	£	1,373,213	2,893,892	2,856,273	3,498,858	4,198,793	5,011,871
Value of power, fuel, etc., used	£	81,736	186,150	172,416	204,060	233,260	291,955
Value of materials used	£	1,485,018	2,717,302	2,901,313	3,578,619	4,479,860	6,910,358
Total value of output	£	3,403,091	6,701,344	6,717,194	8,397,643	10,384,176	14,185,406
Value of production ..	£	1,836,337	3,797,892	3,643,465	4,614,964	5,671,056	6,983,093

13. **Wireless and Amplifying Apparatus.**—The introduction of wireless broadcasting in 1923 gave rise to a new industry in Australia. Early statistical details of the industry are not available as they were grouped together with other electrical apparatus. In 1930–31 a new classification of factories was adopted and "Wireless Apparatus" was shown as a separate industry. The industry is confined mainly to New South Wales and Victoria, but is becoming increasingly important in South Australia. The number of broadcast listeners' licences increased from 331,128 in 1930–31 to 2,245,307 at December, 1951, and this increase reflects the advancement of the industry during that period. During the war years considerable expansion took place in the industry to meet the requirements of the fighting services and apart from a slight drop in output in 1945–46, this expansion has continued.

WIRELESS AND AMPLIFYING APPARATUS : AUSTRALIA.

Items.		1938–39.	1945–46.	1946–47.	1947–48.	1948–49.	1949–50.
Number of factories ..	..	72	97	127	134	136	129
Number of persons employed	..	4,828	8,709	8,935	9,543	9,213	9,283
Value of land and buildings	£	557,953	969,105	1,133,159	1,115,494	1,105,944	1,204,813
Value of plant and machinery	£	305,468	711,805	587,179	643,732	688,162	770,185
Salaries and wages paid	£	754,302	2,295,866	2,569,401	3,070,698	3,362,259	3,744,637
Value of power, fuel, etc., used	£	23,525	58,240	62,365	91,072	102,703	100,916
Value of materials used	£	1,355,683	3,446,056	4,169,444	4,919,968	5,196,786	6,408,842
Total value of output	£	2,502,338	6,514,935	7,721,018	9,235,861	9,911,873	11,761,450
Value of production ..	£	1,123,130	3,010,639	3,489,209	4,224,821	4,612,384	5,251,692
Domestic receiving sets made	No.	163,821	93,048	261,359	335,208	294,119	343,323

14. **Cotton.**—(i) *General.* Cotton has been grown in Australia since 1860, but never on a very large scale. The average annual quantity of unginned cotton produced during the five years ended 1938–39 was 18 million lb. and slightly under 2 million lb. in the five years ended 1949–50. Arising out of the development in the local manufacture of cotton materials and the further expansion following the outbreak of war in 1939, plans were completed for an extension of the area devoted to the cultivation of this crop, but since the commencement of the Pacific War there has been a definite downward trend. The growing of cotton, which is restricted to Queensland, is referred to in some detail in Chapter XX.—Agricultural Production.

(ii) *Ginning.* The ginning and marketing of cotton is controlled by the Queensland Cotton Board. The Board operates ginneries and processes by-products. The production of raw cotton is insufficient for local factory requirements and is supplemented by imports from overseas, chiefly from India, Brazil and the United States of America.

(iii) *Spinning and Weaving.* The recent expansion in the spinning and weaving section of the cotton industry marks an important event in its development. New factories have been established and Australia is now producing an extensive range of cotton goods, including duck and canvas from cotton or flax, denims, drill, etc., tyre cord and tyre cord fabric. The number of establishments engaged in cotton spinning and weaving in Australia and other particulars of the industry are shown in the following table for the five years ended 1949–50 in comparison with 1938–39.

COTTON SPINNING AND WEAVING: AUSTRALIA.

Items.	1938–39.	1945–46.	1946–47.	1947–48.	1948–49.	1949–50.
Number of factories	33	78	81	79	91	93
Number of persons employed ..	3,589	7,253	7,765	7,702	8,246	8,377
Value of land and buildings £	703,790	1,529,150	1,709,711	1,867,737	2,077,982	2,843,639
Value of plant and machinery £	735,529	1,913,775	1,985,327	2,042,326	2,748,439	4,117,589
Salaries and wages paid £	493,109	1,714,669	2,152.044	2,511,918	2,939,115	3,306,022
Value of power, fuel, etc., used £	50,011	149,990	186,563	209,096	250,739	308,156
Value of materials used £	1,357,280	4,559,560	5,574,689	6,075,570	7,856,804	9,889,139
Total value of output £	2,385,990	7,936,716	9,499.843	10,371,439	12,896,178	16,188,407
Value of production .. £	978,699	3,227,166	3,738.591	4,086,773	4,788,635	5,991,112

15. **Wool Carding, Spinning and Weaving.**—(i) *Details for each State.* The importance of this industry is emphasized by the fact that Australia is the world's chief source of wool and the development of the woollen industry since its establishment at an early period in Australian history is of singular interest. The production consists chiefly of woollen cloth and tweed, worsted cloth, rugs, blankets and yarn, all of which have acquired a reputation for purity and durability. The following table shows particulars for 1949–50.

WOOL CARDING, SPINNING AND WEAVING, 1949–50.

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W.Aust.	Tas.	Australia.
Number of factories	57	95	4	3	3	6	168
Number of persons employed ..	7,987	12,114	920	599	328	2,406	24.354
Value of land and buildings £	1,548,052	2,358,166	109,829	37,568	81,887	211,767	4,347,269
Value of plant and machinery £	1,694,031	2,871,857	235,568	68,762	84,906	279,008	5,234,732
Salaries and wages paid £	2,900,595	4,954,740	279,180	226,889	118,580	924,357	9,404,341
Value of power, fuel, etc., used £	248,892	470,550	20,093	23,196	14,097	54,228	831,056
Value of materials used £	9,435,031	17,467,095	1,075,209	859,515	776,128	3,128,541	32,741,519
Total value of output £	14,005,877	26,818,728	1,532,382	1,361,880	1,215,553	5,063,999	49,998,419
Value of production .. £	4,321,954	8,881,083	437,080	479,169	425,328	1,881,230	16,425,844

(ii) *Total for Australia.* The extent of the wool textile industry in Australia in the years 1945–46 to 1949–50 compared with 1938–39 is shown in the following table. Detailed particulars for the several States are not available for publication.

WOOL CARDING, SPINNING AND WEAVING: AUSTRALIA.

Items.	1938–39. (a)	1945–46	1946–47.	1947–48.	1948–49.	1949–50.
Number of factories	90	114	126	142	153	168
Number of persons employed ..	19,608	21,536	22,851	23,480	24,893	24,354
Value of land and buildings £	2,380,009	3,028,066	3.080,180	3,459,547	3,654,059	4,347,269
Value of plant and machinery £	3,369,517	2,925,811	3,060,414	3,527,484	4,245,579	5,234,732
Salaries and wages paid £	2,887,907	5,324,388	6,085,426	7,164,651	8,684,370	9,404,341
Value of power, fuel, etc., used £	392,537	511,416	615,667	672,032	786,560	831,056
Value of materials used £	7,331,117	12,314,413	14.133.889	16.072,097	23,643,448	32,741,519
Total value of output £	12,514,610	21,776,979	25,153,735	29,030,831	38,028,454	49,998,419
Value of production .. £	4,790,956	8,951,150	10,404,179	12,286,702	13,598,446	16,425,844
Woollen cloth and tweed sq. yd.	8,336,226	16,707,262	18,626,138	18,811,635	16,319,099	13,245,309
Worsted Cloth .. ,,	17,986,091	12,643,557	14,276,818	16,459,496	18,073,858	19,074,183
Serge .. .. ,,	792,314	1,022,388	746,048	827,789	1,573,403	817,270
Flannel—						
For outer clothing .. ,,	2,143,835	2,192,849	2,682,917	3,227,006	2,936,531	1,885,636
For underwear (pure) ,,	1,557,373	1,566,932	1,850,643	1,641,085	1,526,908	1,659,014
For underwear (mixtures) ,,	813,530	655,803				
Blankets .. .. pair	573,795	981,036	703,247	721,089	689,154	895,586

(a) Includes Woolscouring Works in Victoria and Tasmania and Woolscouring Works and Fellmongeries in South Australia.

16. **Hosiery and Other Knitted Goods.**—(i) *Details for each State.* There were 496 hosiery and knitting mills operating in Australia during 1949–50. The total number of persons employed in these establishments was 21,577, of whom 14,951 were females. Details for each State are shown in the following table :—

HOSIERY AND OTHER KNITTED GOODS, 1949–50.

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W.Aust.	Tas.	Australia.
Number of factories	143	327	6	8	8	4	496
Number of persons employed ..	6,471	14,204	512	113	180	97	21,577
Value of land and buildings £	1,212,421	2,506,414	97,357	24,155	22,922	13,329	3,876,598
Value of plant and machinery £	1,000,747	2,666,497	104,665	13,271	14,496	15,058	3,814,734
Salaries and wages paid £	2,243,082	4,881,239	144,804	33,931	49,494	29,259	7,381,809
Value of power, fuel, etc., used £	86,086	220,603	3,667	1,209	1,936	1,607	315,108
Value of materials used £	5,398,518	10,334,455	656,969	50,602	123,119	73,220	16,636,883
Total value of output £	9,220,795	18,775,268	931,622	105,073	201,955	116,006	29,350,719
Value of production .. £	3,736,191	8,220,210	270,986	53,262	76,900	41,179	12,398,728

(ii) *Total for Australia.* Comparative statistics for 1938–39 and the years 1945–46 to 1949–50 are shown in the following table :—

HOSIERY AND OTHER KNITTED GOODS : AUSTRALIA.

Items.	1938–39.	1945–46.	1946–47.	1947–48.	1948–49.	1949–50.
Number of factories	313	376	397	420	465	496
Number of persons employed ..	18,159	17,091	19,264	20,337	21,116	21,577
Value of land and buildings £	1,962,336	2,444,369	2,608,352	2,753,994	3,210,207	3,876,598
Value of plant and machinery £	1,930,564	1,358,482	1,521,026	1,964,508	2,763,161	3,814,734
Salaries and wages paid £	2,331,536	3,687,445	4,502,549	5,469,665	6,526,281	7,381,809
Value of power, fuel, etc., used £	133,154	185,159	212,469	235,077	271,553	315,108
Value of materials used £	4,284,216	7,202,997	8,786,552	10,897,809	14,137,338	16,636,883
Total value of output £	8,226,468	13,252,876	16,831,684	20,661,106	24,951,041	29,350,719
Value of production .. £	3,809,098	5,864,720	7,832,663	9,528,220	10,542,150	12,398,728

(iii) *Materials used and Production*, 1949–50. The following quantities of yarn were used in these establishments during 1949–50, viz. :—Worsted, 8,524,701 lb. ; woollen, 142,828 lb. ; cotton, 8,773,975 lb. ; mercerised cotton, 568,023 lb. ; rayon, 6,512,710 lb. ; silk, 196,136 lb. ; nylon, 530,742 lb. ; other, including mixtures, 216,893 lb. Production comprised 42,094,068 garments, valued at £15,844,571 ; and 3,524,213 dozen pairs of socks and stockings, valued at £9,220,238.

17. **Tanning, Currying and Leather Dressing.**—(i) *Details for each State.* In Class VII. the most important industry is tanning. Formerly the production of tanneries in Australia was confined to the coarser sorts of leathers, but there are now very few kinds which cannot be produced locally, and an export trade has been built up in some varieties.

TANNING, CURRYING AND LEATHER DRESSING, 1949–50.

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W.Aust.	Tas.	Australia.
Number of factories	71	46	12	10	5	1	145
Number of persons employed ..	1,901	2,497	618	215	(a)	(a)	5,473
Value of land and buildings £	596,758	582,479	64,530	65,239	(a)	(a)	1,355,319
Value of plant and machinery £	500,884	426,461	107,907	91,749	(a)	(a)	1,170,945
Salaries and wages paid £	1,001,042	1,277,156	275,654	96,337	(a)	(a)	2,755,456
Value of power, fuel, etc., used £	100,522	108,255	17,948	8,766	(a)	(a)	242,943
Value of materials used £	2,731,081	2,841,802	776,292	222,208	(a)	(a)	6,846,103
Total value of output £	4,337,125	5,023,446	1,224,516	373,516	(a)	(a)	11,419,328
Value of production .. £	1,505,522	2,073,389	430,276	142,542	(a)	(a)	4,330,282

(a) Not available for publication ; figures are included in the total for Australia.

(ii) *Total for Australia.* The development of the tanning industry during the years 1938–39 and 1945–46 to 1949–50 is shown in the following table :—

TANNING, CURRYING AND LEATHER DRESSING : AUSTRALIA.

Items.		1938–39.	1945–46.	1946–47.	1947–48.	1948–49.	1949–50.
Number or factories ..	..	132	152	154	149	144	145
Number of persons employed ..		4,375	5,022	5,428	5,361	5,421	5,473
Value of land and buildings	£	813,713	1,048,240	1,127,454	1,154,301	1,270,961	1,355,319
Value of plant and machinery	£	523,538	704,551	785,894	857,186	979,592	1,170,945
Salaries and wages paid	£	919,781	1,662,156	1,953,573	2,182,874	2,501,897	2,755,456
Value of power, fuel, etc., used	£	87,670	127,824	148,501	165,777	188,670	242,943
Value of materials used	£	2,983,041	5,237,697	6,218,200	6,308,195	6,465,893	6,846,103
Total value of output	£	4,592,642	8,055,696	9,646,020	9,804,867	10,525,558	11,419,328
Value of production ..	£	1,521,931	2,690,175	3,279,319	3,330,895	3,870,995	4,330,282

(iii) *Material Used and Production.* The quantities of materials used and leather produced in tanneries in each State in 1949–50 are shown in the following table. Some leather is also produced in works other than tanneries, but this is excluded.

TANNERIES : MATERIAL USED AND PRODUCTION, 1949–50.

Particulars.		N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Hides	No.	861,430	1,123,577	358,773	(a)	137,422	(a)	2,593,956
Skins—								
Calf ..	"	608,303	549,284	181,824	5,749	(a)	(a)	1,350,763
Goat ..	"	851,155	(a)	(a)	..	..	..	908,602
Sheep ..	"	..	433,350	(a)	(a)	..	..	440,491
Marsupial ..	"	19,198	32,369	(a)	(a)	..	..	68,297
Pelts treated	"	b 2,657,472	299,950	(a)	(a)(b)	..	..	b 3,866,745
Bark used—								
Wattle ..	tons	3,916	5,066	1,286	(b) 1,307	(a)	(a)	(b) 11,667
Mallet ..	"	..	460	..	..	342	..	802
Other ..	"	(a)	(a)	..	..	..	..	848
Tanning extract used	"	4,149	2,929	1,920	(a)(b)	1,132	(a)(b)	(b) 10,714
Leather made—								
Sole and Belting	lb.	11,736,243	14,837,098	7,057,084	(a)	3,352,335	(a)	38,650,009
Harness ..	"	636,743	459,931	826,347	(a)	(a)	..	1,965,573
Upholstery ..	sq. ft.	(a)	5,778,699	(a)	(a)	..	..	10,318,195
Dressed and Upper from Hides—								
Sold by Measurement—								
Patent	sq. ft.	335,563	1,070,547	..	..	..	..	1,406,110
All Other	"	12,722,417	18,477,879	6,589,793	2,204,440	(a)	(a)	41,704,049
Sold by Weight (all kinds)	lb.	(a)	114,604	(a)	(a)	8,711	(a)	233,006
Dressed from skins—								
Calf ..	sq. ft.	3,996,441	3,610,066	1,095,707	(a)	50,604	(a)	8,799,138
Goat ..	"	3,754,929	(a)	(a)	..	..	..	4,009,508
Sheep ..	"	10,160,449	1,959,187	(a)	(a)	..	..	b15,997,353
Marsupial	"	96,712	129,288	(a)	(a)	..	..	302,632

(a) Not available for publication ; figures are included in the total for Australia. (b) Includes an amount produced or used in other works.

18. **Tailoring and Ready-made Clothing Factories.**—(i) *Details for each State.* Statistics showing the distribution of this industry between States in 1949–50 are shown in the following table :—

TAILORING AND READY-MADE CLOTHING FACTORIES, 1949–50.

Items.		N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Number of factories ..	..	879	560	160	139	143	21	1,902
Number of persons employed ..		18,960	10,642	3,196	2,688	1,338	426	37,250
Value of land and buildings	£	3,102,095	1,603,767	381,700	453,111	267,192	63,830	5,871,695
Value of plant and machinery	£	976,235	473,549	82,204	91,402	30,925	11,502	1,665,817
Salaries and wages paid	£	5,702,690	3,557,969	808,513	714,259	343,456	119,544	11,246,431
Value of power, fuel, etc., used	£	97,258	70,229	13,935	15,052	5,832	1,889	204,195
Value of materials used	£	10,790,555	6,496,568	1,423,750	890,948	464,168	121,235	20,187,224
Total value of output	£	19,428,443	12,208,493	2,699,441	1,882,856	976,101	280,589	37,475,923
Value of production ..	£	8,540,630	5,641,696	1,261,756	976,856	506,101	157,465	17,084,504

(ii) *Total for Australia.* Details for the five years 1945–46 to 1949–50, compared with 1938–39 are as follows :—

TAILORING AND READY-MADE CLOTHING FACTORIES : AUSTRALIA.

Items.		1938–39.	1945–46.	1946–47.	1947–48.	1948–49.	1949–50.
Number of factories ..	..	1,177	1,420	1,576	1,687	1,874	1,902
Number of persons employed ..		26,499	30,047	33,441	35,375	37,958	37,250
Value of land and buildings	£	3,175,748	4,141,584	4,655,424	4,915,366	5,549,818	5,871,695
Value of plant and machinery	£	355,503	828,695	965,847	1,215,375	1,460,516	1,665,817
Salaries and wages paid	£	3,168,472	5,506,614	6,899,245	8,186,135	10,323,392	11,246,431
Value of power, fuel, etc., used	£	72,431	116,616	133,904	149,720	186,648	204,195
Value of materials used	£	4,946,519	9,616,801	12,255,029	15,232,733	19,343,976	20,187,224
Total value of output	£	9,830,646	18,614,368	23,244,804	27,872,666	35,199,165	37,475,923
Value of production ..	£	4,811,696	8,880,951	10,855,871	12,490,213	15,668,541	17,084,504

19. **Dressmaking and Millinery Establishments.**—Particulars of dressmaking and millinery establishments in Australia for the five years ended 1949–50 compared with 1938–39 are shown in the following table :—

DRESSMAKING AND MILLINERY ESTABLISHMENTS : AUSTRALIA.

Items.		1938–39.	1945–46.	1946–47.	1947–48.	1948–49.	1949–50.
Number of factories ..	..	869	998	1,002	1,175	1,270	1,313
Number of persons employed ..		16,398	18,051	20,437	20,893	21,934	22,384
Value of land and buildings	£	2,051,611	2,723,617	2,956,035	3,303,687	3,420,811	3,626,294
Value of plant and machinery	£	189,263	362,065	438,127	509,603	601,092	713,220
Salaries and wages paid	£	1,652,808	3,037,698	3,768,483	4,367,523	5,496,616	6,243,588
Value of power, fuel, etc., used	£	33,067	57,379	66,489	77,300	94,801	111,617
Value of materials used	£	2,609,363	5,280,433	6,238,057	8,300,052	10,103,876	8,996,084
Total value of output	£	5,234,727	10,507,792	12,330,358	15,665,395	18,986,443	18,920,277
Value of production ..	£	2,592,297	5,169,980	6,025,812	7,288,043	8,787,766	9,812,576

20. **Shirts, Collars and Underclothing.**—(i) *Details for each State.* Particulars of this industry are shown for 1949–50 in the following table :—

SHIRTS, COLLARS AND UNDERCLOTHING, 1949–50.

Items.		N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Number of factories ..	..	184	137	21	33	20	2	397
Number of persons employed ..		5,378	4,857	1,166	517	(*a*)	(*a*)	12,545
Value of land and buildings	£	864,567	708,923	119,171	76,981	(*a*)	(*a*)	1,833,291
Value of plant and machinery	£	336,669	261,865	42,167	27,055	(*a*)	(*a*)	692,593
Salaries and wages paid	£	1,545,328	1,398,390	297,854	131,500	(*a*)	(*a*)	3,514,706
Value of power, fuel, etc., used	£	27,374	24,238	4,274	2,325	(*a*)	(*a*)	59,913
Value of materials used	£	4,316,154	3,676,256	514,901	172,775	(*a*)	(*a*)	8,915,340
Total value of output	£	6,891,721	6,285,680	967,909	356,772	(*a*)	(*a*)	14,952,587
Value of production ..	£	2,548,193	2,585,186	448,734	181,672	(*a*)	(*a*)	5,977,334

(*a*) Not available for separate publication ; figures are included in total for Australia.

(ii) *Total for Australia.* The following table shows the progress of the industry since 1938–39 :—

SHIRTS, COLLARS AND UNDERCLOTHING : AUSTRALIA.

Items.		1938–39.	1945–46.	1946–47.	1947–48.	1948–49.	1949–50.
Number of factories ..	..	283	347	376	404	410	397
Number of persons employed ..		11,081	9,902	11,184	11,880	12,760	12,545
Value of land and buildings	£	945,972	1,310,863	1,425,838	1,631,574	1,790,278	1,833,291
Value of plant and machinery	£	230,579	396,597	468,581	547,871	608,311	692,593
Salaries and wages paid	£	1,142,855	1,728,513	2,252,398	2,621,751	3,298,978	3,514,706
Value of power, fuel, etc., used	£	23,639	31,626	40,538	45,681	54,908	59,913
Value of materials used	£	2,650,779	4,445,741	5,590,294	7,066,187	9,199,363	8,915,340
Total value of output	£	4,435,209	7,078,821	9,041,903	11,465,829	14,735,597	14,952,587
Value of production	£	1,760,791	2,601,454	3,411,071	4,353,961	5,481,326	5,977,334

21. **Boot and Shoe Making.**—(i) *Boot and Shoe Factories.* The boot and shoe factories hold an important place both in regard to employment afforded and extent of output. The following table relates to 1949–50 and refers to boot and shoe factories as distinct from those devoted to repairing. It has been necessary to include details of Boot and Shoe Repairing in Tasmania, in order to conceal confidential information for that State. Factories engaged in the manufacture of rubber boots and shoes are excluded, being classified under Rubber Goods, *vide* par. 38.

BOOT AND SHOE FACTORIES, 1949–50.

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W.Aust.	Tas. (a)	Australia.
Number of factories	196	235	30	20	12	17	510
Number of persons employed ..	7,779	11,329	1,619	1,520	770	163	23,180
Value of land and buildings £	874,686	1,068,787	123,668	163,410	72,199	25,251	2,328,001
Value of plant and machinery £	561.481	962,138	127,936	122,997	90,067	12,367	1,876,986
Salaries and wages paid £	2,732,956	4,285,370	526,340	549,457	262,303	53,658	8,410,084
Value of power, fuel, etc., used £	39,906	64,406	5,188	7,638	5,573	706	123,417
Value of materials used £	3,769,228	6,743,248	725,093	694,280	355,011	65,476	12,352,336
Total value of output £	7,882,385	12,887,888	1,411,604	1,356,905	691,808	137,241	24,367,831
Value of production .. £	4,073,251	6,080,234	681,323	654,987	331,224	71,059	11,892,078

(*a*) Includes details of Boot and Shoe Repairing.

(ii) *Quantity and Value of Production.* The number and value of boots, shoes and slippers made in factories producing and repairing boots and shoes in each State are shown for 1949–50 in the following table. Particulars relating to the output of rubber boots and shoes are not included :—

BOOT AND SHOE FACTORIES, OUTPUT, 1949–50.

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W.Aust.	Tas.	Australia.
QUANTITY.							
Boots, shoes and sandals pairs	6,023,575	8,010,572	1,160,776	1,298,504	(*a*)	(*a*)	17,198,713
Slippers .. .. "	2,821,634	4,294,827	842,188	154,207	492,206	..	8,605,062
Uppers (*b*) .. "	11,097	154,098	(*a*)	(*a*)	(*a*)	..	167,439
VALUE.							
Boots, shoes and sandals £	6,737,210	9,694,992	1,137,013	1,287,631	(*a*)	(*a*)	19,462,355
Slippers .. .. £	939,882	1,608,857	254,650	39,577	180,795	..	3,023,761
Uppers (*b*) .. .. £	7,486	21,959	(*a*)	(*a*)	(*a*)	..	31,942

(*a*) Not available for publication ; figures are included in total for Australia. (*b*) Made for sale as such. (*c*) Not available.

22. **Flour-milling.**—(i) *Details for States.* The following table shows the position of the grain-milling industry in each State for the year 1949–50.

FLOUR-MILLING, 1949–50.

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W.Aust.	Tas.	Australia.
Number of factories	55	38	10	30	20	8	161
Number of persons employed ..	1,712	1,272	422	498	483	154	4,541
Value of land and buildings £	1,015,621	788,881	209,005	174,874	270,604	97,671	2,556,656
Value of plant and machinery £	1,204,768	683.952	157,287	222,960	294,328	29,996	2,593.291
Salaries and wages paid £	914,655	654,780	197,448	259,007	249,118	73,661	2,348,669
Value of power, fuel, etc., used £	168,394	116,930	34,384	59,313	59,236	5,873	444,130
Value of materials used £	11,011,785	8,262,645	2,168,088	2,936,943	2,872,633	585,110	27,837,204
Total value of output £	12,900,688	9,545,894	2,596,780	3,395,458	3,431,040	688,566	32,558,426
Value of production .. £	1,720,509	1,166,319	394,308	399,202	499,171	97,583	4,277,092

(ii) *Production of Flour and By-products.* The production of flour by the mills in each State for the years 1938–39 and 1945–46 to 1949–50 was as follows :—

FLOUR-MILLING : PRODUCTION OF FLOUR.

(Tons of 2,000 lb.)

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
1938–39 ..	547,162	436,829	84,314	146,262	138,583	19,582	1,372,732
1945–46 ..	451,895	315,525	96,984	164,986	166,791	22,657	1,218,838
1946–47 ..	541,469	449,170	98,232	202,366	176,727	21,695	1,489,659
1947–48 (*a*)	552,784	501,325	108,022	215,155	197,104	23,753	1,598,143
1948–49 (*a*)	667,645	479,288	110,843	211,787	183,143	26,484	1,679,190
1949–50 (*a*)	597,491	447,784	112,995	162,259	161,251	27,243	1,509,023

(*a*) Includes Wheatmeal for Baking.

The 1949–50 production of 1,509,023 tons of flour in Australia was valued at £24.478,856. In addition, 590,131 tons of bran and pollard, valued at £6,306,905, were made. The quantity of wheat ground was 71,891,045 bushels.

23. **Bakeries.**—Information regarding establishments in which the manufacture of bread, cakes, etc., was carried on in the year 1949–50 is given in the table below. It should be noted, however, that the details refer only to establishments coming within the definition of a factory as explained in § 1, par. 6, page 1086. For that reason the table does not give complete details of the industry, as a large number of bakehouses not coming within the definition are excluded. This is true of all other industries covered by the statistics of manufacturing production, but, in view of the omission of such a large number of establishments in this instance, special mention is deemed necessary.

BAKERIES (INCLUDING CAKES AND PASTRY), 1949–50.

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.(*a*)	Australia.
Number of factories	1,144	897	435	194	266	128	3,064
Number of persons employed ..	6,864	4,846	2,566	1,216	945	1,488	17,925
Value of land and buildings £	3,936,949	2,607,930	783.796	551,654	418,997	517,386	8,816,712
Value of plant and machinery £	1,402,044	1,015,647	382,627	338,253	191,022	305,829	3,635,422
Salaries and wages paid £	2,323,372	1,616,564	740,039	435,187	272,558	503,135	5,890,855
Value of power, fuel, etc., used £	371,446	246,488	117,850	71,446	47,069	62,973	917,272
Value of materials used £	6,883,183	4,749,205	2,396,045	1,306,108	897,080	2,174,230	18,405,851
Total value of output £	12,285,863	8,583,092	4,306,032	2,250,252	1,543,159	3,342,078	32,310,476
Value of production .. £	5,031,234	3,587,399	1,792,137	872,698	599,010	1,104,875	12,987,353

(*a*) Includes confectionery.

24. **Sugar-mills.**—(i) *General.* Sugar-cane is grown in New South Wales and Queensland and particulars of area, yield, etc., are given in extended detail in Chapter XX.—Agricultural Production.

The products of the sugar-mill are raw sugar and molasses, the former being sent to the refineries in different parts of Australia for further treatment. Particulars of cane crushed and sugar produced embodied in the following two tables refer to the quantities treated during the years ended 30th June, irrespective of the season in which the cane was grown ; consequently the figures relating to cane crushed and sugar produced may differ slightly from those given in Chapter XX.—Agricultural Production, which relate to harvest years.

(ii) *Details for New South Wales.* The following table shows details of the operations of sugar mills in New South Wales for the years 1938–39, and 1945–46 to 1949–50 :—

SUGAR-MILLS : NEW SOUTH WALES.

Items.	1938–39.	1945–46.	1946–47.	1947–48.	1948–49.	1949–50.
Number of factories	3	3	3	3	3	3
Number of persons employed ..	212	283	297	236	223	227
Cane crushed .. tons	337,038	166,069	309,655	267,261	273,974	330,740
Raw sugar produced (94 net titre) .. .. tons	45,106	21,220	39,768	33,560	33,003	40,706
Molasses produced .. gals.	1,489,090	1,110,000	1,281,920	(a)	1,348,480	1,631,200

(a) Not available for publication.

(iii) *Details for Queensland.* Particulars relating to the operations of sugar-mills in Queensland are shown in the following table for the years 1938–39 and 1945–46 to 1949–50. Particulars of the distribution of molasses as recorded by the mills are also shown.

SUGAR-MILLS : QUEENSLAND.

Items.	1938–39.	1945–46.	1946–47.	1947–48.	1948–49.	1949–50.
Number of factories	33	32	31	32	32	32
Number of persons employed ..	4,419	4,665	4,205	4,762	5,531	5,898
Cane crushed .. tons	5,432,193	4,551,971	3,717,330	4,150,986	6,707,530	6,518,006
Raw sugar produced (94 net titre) .. .. tons	775,064	644,661	512,086	571,694	910,049	896,413
Molasses—						
Sold to distillers and others gals.	8,275,887	9,380,679	10,691,581	8,256,892	18,233,153	17,595,388
Used as fodder .. ,,	4,237,196	4,675,909	6,932,902	5,320,970	5,845,585	5,563,273
Used as manure .. ,,	3,293,543	3,074,755	2,899,167	3,558,155	5,282,501	7,517,311
Run to waste .. ,,	498,926	50,902	63,466	15,035	167,537	283,315
Burnt as fuel .. ,,	3,748,590	1,748,299	954,970	1,427,775	1,677,174	1,490,063
Sold or used for other purposes gals.	232,049	423,085	241,045	312,930	402,485	726,684
Total molasses disposed of ,,	20,286,191	19,353,629	21,783,131	18,891,757	31,608,435	33,176,034

25. **Sugar Refineries.**—The establishment of the sugar-refining industry considerably antedates the establishment of the sugar-milling industry, the raw material operated on in the earlier years coming chiefly from Mauritius and the East. In 1949–50 there were two sugar refineries in the States of Victoria and Queensland, and one in each of the States of New South Wales, South Australia and Western Australia. The quantity of raw sugar treated amounted to 440,871 tons, for a yield of 422,675 tons of refined sugar, valued at £16,232,309.

26. **Confectionery Factories.**—(i) *Details for each State.* The figures for 1949–50 are shown hereunder :—

CONFECTIONERY FACTORIES, 1949–50.

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W.Aust.	Tas.	Australia. (b)
Number of factories	104	103	25	24	11	(a)	267
Number of persons employed ..	3,335	3,468	422	430	409	(a)	8,064
Value of land and buildings £	1,005,494	701,735	114,680	164,517	84,912	(a)	2,071,338
Value of plant and machinery £	876,410	996,192	65,628	70,970	77,595	(a)	2,086,795
Salaries and wages paid £	1,279,842	1,344,346	109,404	127,278	113,084	(a)	2,973,954
Value of power, fuel, etc., used £	116,104	116,574	7,285	12,501	10,531	(a)	262,995
Value of materials used £	4,611,796	3,974,267	314,100	285,728	385,216	(a)	9,571,107
Total value of output £	7,794,968	6,972,528	562,985	501,846	642,337	(a)	16,474,664
Value of production .. £	3,067,068	2,881,687	241,600	203,617	246,590	(a)	6,640,562

(a) Not available for publication. (b) Excludes Tasmania.

(ii) *Total for Australia, excluding Tasmania.* Particulars of the confectionery industry during the last five years are compared with 1938–39 in the following table. Confectionery establishments in Tasmania have been combined with bakeries in order to conceal confidential information. Production in Australia is more than sufficient to supply local requirements.

CONFECTIONERY FACTORIES(*a*) : AUSTRALIA.

Items.		1938–39.	1945–46.	1946–47.	1947–48.	1948–49.	1949–50.
Number of factories ..	..	**148**	198	237	242	263	267
Number of persons employed ..		**7,256**	5,965	6,574	7,061	7,505	8,064
Value of land and buildings	£	**1,423,406**	1,556,321	1,640,081	1,709,572	1,906,456	2,071,338
Value of plant and machinery	£	**1,363,619**	1,142,484	1,295,007	1,393,106	1,628,929	2,086,795
Salaries and wages paid	£	**1,040,984**	1,389,479	1,660,411	1,978,030	2,396,197	2,973,954
Value of power, fuel, etc., used	£	**106.869**	138,512	160,280	179,635	215,012	262,995
Value of materials used	£	**3,101,955**	4,668,928	5,436,640	6,624,193	8,556,054	9,571,107
Total value of output	£	**5,627,247**	8,121,623	9,281,800	11,128,404	14,456,903	16,474,664
Value of production ..	£	**2,418,423**	3,314,183	3,684,880	4,324,576	5,685,837	6,640,562

(*a*) Excludes Tasmania.

27. Jam, Fruit and Vegetable Canning, Pickles, Sauces, Vinegar Factories.—(i) *Details for each State.* The following table shows particulars of factories included in **this class for 1949–50 :—**

JAM, FRUIT AND VEGETABLE CANNING, PICKLES, ETC., FACTORIES, 1949–50.

Items.		**N.S.W.**	**Victoria.**	**Q'land.**	**S. Aust.**	**W.Aust.**	**Tas.**	**Australia.**
Number of factories ..	..	70	59	19	16	12	21	197
Number of persons employed ..		3,321	4,914	1,307	1,141	183	1,334	12,200
Value of land and buildings	£	1,045,182	1,416,487	303,204	310,381	68,644	346,247	3,490,145
Value of plant and machinery	£	894,320	1,427,070	301,517	214,901	54,253	226,098	3,118,159
Salaries and wages paid	£	1,372,409	2,059,358	477,703	415,786	61,581	514,097	4,900,934
Value of power, fuel, etc., used	£	123,933	188,134	28,919	32,224	4,481	37,371	415,062
Value of materials used	£	4,741,991	7,749,452	2,207,851	1,101,210	150,738	1,529,771	17,481,013
Total value of output	£	7,137,136	11,644,558	3,179,001	1,732,953	262,550	2,314,137	26,270,335
Value of production ..	£	2,271,212	3,706,972	942,231	599,519	107,331	746,995	8,374,260

(ii) *Total for Australia.* Particulars of these establishments in Australia for the five years 1945–46 to 1949–50 compared with 1938–39 are shown hereunder :—

JAM, FRUIT AND VEGETABLE CANNING, PICKLES, ETC., FACTORIES: AUSTRALIA.

Items.		1938–39.	1945–46.	1946–47.	1947–48.	1948–49.	1949–50.
Number of factories ..	..	**123**	157	170	177	182	197
Number of persons employed ..		**6,476**	11,403	10,700	11,061	11,447	12,200
Value of land and buildings	£	**1,382,150**	2,183,654	2,406,588	2,761,990	3,050,749	3,490,145
Value of plant and machinery	£	**720,639**	1,629,979	1,870,378	2,332,675	2,628,491	3,118,159
Salaries and wages paid	£	**1,148,991**	2,947,366	3,018,713	3,652,763	4,147,192	4,900,934
Value of power, fuel, etc., used	£	**97,521**	260,079	252,046	284,246	324,895	415,062
Value of materials used	£	**4,799,515**	12,325,758	12,224,225	14,475,402	14,761,507	17,481,013
Total value of output	£	**7,230,914**	17,664,531	18,291,803	21,588,403	22,134,495	26,270,335
Value of production ..	£	**2,333,878**	5,078,694	5,815,532	6,828,755	7,048,093	8,374,260

During the 1939–45 War, production of jams expanded greatly and a high level of output of 171 million lb. was attained in 1943–44. Production afterwards receded, but attained a new record of 198.5 million lb. in 1947–48. It dropped to 134.6 million lb. in 1949–50. The peak output of fruit preserved occurred in 1949–50 with 208.4 million lb., compared with the previous highest level of 189.1 million lb. attained in 1947–48.

There has also been a marked development in the production of canned vegetables. In 1938–39 output totalled 10,255,000 lb. but, as a result of the war-time demand by the armed services, production reached the record level of 119,149,000 lb. in 1944–45. However, it has since declined to 70,583,000 lb. in 1949–50.

(iii) *Production.* The following table shows the total quantity and value of jams, pickles, sauces and other items manufactured in each State in 1949–50 :—

JAMS, PRESERVED FRUIT AND VEGETABLES, PICKLES AND SAUCES : OUTPUT, 1949–50.

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
			QUANTITY.				
Jams .. .. '000 lb.	34,549	(*a*)71,008	16,121	11,461	1,438	(*b*)	134,577
Fruit Pulp—							
Consumed in own works " .. cwt.	35,763	25.990	(*c*)	10,100	(*c*)	16,080	92,343
For sale or addition to stock .. cwt.	23,718	127,416	11,151	1,607	1,147	117,362	282,401
Tomato Pulp—							
Consumed in own works .. cwt.	33,284	138,393	(*c*)	26,424	10,349	(*c*)	210,915
For sale or addition to stock .. cwt.	27,592	337,690	..	(*c*)	12,019	(*c*)	391,650
Fruit, preserved in liquid '000 lb.	31,748	97,486	37,366	17,784	343	23,657	208,384
Vegetables, preserved in liquid.. .. '000 lb.	32,265	27,845	3,045	3,100	335	4,153	70,583
Pickles .. ..'000 pints	3,828	2,765	(*c*)	2,297	348	(*c*)	9,428
Sauces .. " "	12,221	14,289	1,625	2,974	(*c*)	(*c*)	32,300
			VALUE (£).				
Jams	1,363,641	*a*2,655,936	703,733	434,388	76,396	(*b*)	5,234,094
Fruit, preserved in liquid ..	1,274,010	3,314,385	1,886,761	645,712	10,316	878,156	8,009,340
Vegetables, preserved in liquid..	1,721,030	1,406,763	118,755	101,785	31,734	252,122	3,632,189
Pickles	303,375	176,491	(*c*)	181,358	18,508	(*c*)	695,237
Sauces	1,071,624	927,152	78,721	174,884	(*c*)	(*c*)	2,316,024

(*a*) Includes Tasmania. (*b*) Included with Victoria. (*c*) Not available for publication; figures are included in total for Australia.

28. **Bacon-curing Factories.**—(i) *Details for each State.* The table hereunder shows particulars of factories engaged in bacon-curing in each State for 1949–50 :—

BACON-CURING FACTORIES, 1949–50.

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W.Aust.	Tas.	Australia.
Number of factories	35	17	8	12	4	10	86
Number of persons employed ..	743	665	837	315	273	74	2,907
Value of land and buildings £	366,035	222,683	268,295	139,967	51,563	30,086	1,078,629
Value of plant and machinery £	153,967	110,722	150,225	78,002	35,309	8,820	537,045
Salaries and wages paid £	339,187	306,253	391,223	141,528	109,896	30,317	1,318,404
Value of power, fuel, etc., used£	41,001	36,986	38,802	32,428	16,851	3,913	169,981
Value of materials used £	2,983,694	2,854,592	3,755,686	1,272,130	1,279,896	371,743	12,517,741
Total value of output £	3,825,675	3,315,312	4,342,632	1,491,263	1,562,557	433,031	14,970,470
Value of production .. £	800,980	423,734	548,144	186,705	265,810	57,375	2,282,748

(ii) *Quantity and Value of Production.* The number of pigs cured and the quantity and value of production of factories in each State for 1949–50 are shown in the following table :—

BACON-CURING FACTORIES : PIGS CURED AND PRODUCTION, 1949-50.

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W.Aust.	Tas.	Australia.
PIGS CURED.							
Pigs cured on own account—							
To finished Bacon	225,064	172,692	214,811	75,700	77,479	15,071	830,132
To green Bacon		(a)	39,946	..	..	(a)	
Pigs cured on commission ..	29,034	1,411	(a)	249	(a)	(a)	31,766
Total	254,098	(a)	(a)	75,949	(a)	(a)	861,898
PRODUCTS (TONS).							
Bacon and ham(b)	12,892	9,704	9,980	3,089	3,542	947	40,154
Lard(b)	535	455	900	167	250	66	2,373
VALUE (£).							
Bacon and ham (b)	2,551,439	2,356,512	2,279,096	884,003	828,085	221,558	9,120,693
Lard(b)	45,801	41,711	94,381	11,964	20,426	4,701	219,044

(a) Not available for publication; figures are included in total for Australia. (b) Includes particulars of articles produced in other works.

Bacon and ham and other pig products are dealt with more fully in Chapter XXI. —Farmyard, Dairy and Bee Products.

29. **Butter, Cheese and Condensed Milk Factories.**—(i) *Details for each State.* The following table shows particulars of butter, cheese and condensed milk factories in each State for 1949–50 :—

BUTTER, CHEESE AND CONDENSED MILK FACTORIES, 1949–50.

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W.Aust.	Tas.	Australia.
Number of factories	99	144	95	45	18	27	428
Number of persons employed ..	2,228	4,920	1,657	936	367	361	10,469
Value of land and buildings £	1,138,656	1,888,358	859,067	343,434	139,550	192,833	4,561,898
Value of plant and machinery £	1,490,158	2,311,347	991,255	327,878	207,146	219,442	5,547,226
Salaries and wages paid £	1,048,471	2,463,922	711,429	412,971	156,256	148,276	4,941,325
Value of power, fuel, etc., used £	331,874	684,966	149,399	90,573	43,210	40,330	1,340,352
Value of materials used £	11,720,782	26,187,960	15,314,296	3,781,480	2,015,185	1,742,082	60,761,785
Total value of output £	13,644,594	30,954,124	16,681,163	4,517,995	2,376,685	2,026,843	70,201,404
Value of production .. £	1,591,938	4,081,198	1,217,468	645,942	318,290	244,431	8,099,267

(ii) *Total for Australia.* The progress of industries included in this group during the five years 1945–46 to 1949–50 is compared with 1938–39 in the following table :—

BUTTER, CHEESE AND CONDENSED MILK FACTORIES : AUSTRALIA.

Items.	1938–39.	1945–46.	1946–47.	1947–48.	1948–49.	1949–50.
Number of factories	523	462	460	449	434	428
Number of persons employed ..	6,851	8,896	9,223	9,642	10,016	10,469
Value of land and buildings £	2,880,323	3,506,020	3,689,495	4,072,933	4,235,559	4,561,898
Value of plant and machinery £	3,066,840	3,597,366	3,690,273	4,156,415	4,678,802	5,547,226
Salaries and wages paid £	1,569,531	2,737,217	3,014,595	3,578,020	4,237,381	4,941,325
Value of power, fuel, etc., used £	389,501	755,755	781,736	873,999	1,070,074	1,340,352
Value of materials used £	29,161,983	34,990,910	35,619,549	44,419,318	52,837,132	60,761,785
Total value of output £	33,094,851	40,771,127	42,134,803	52,402,951	61,242,465	70,201,404
Value of production .. £	3,543,367	5,024,462	5,733,518	7,109,634	7,335,259	8,099,267

(iii) *Quantity and Value of Production.* The next table shows the quantities and values of butter, cheese and condensed milk produced and the quantities of milk used in their production during 1949–50. These details are restricted to factory production and therefore exclude farm output.

BUTTER, CHEESE AND CONDENSED MILK FACTORIES: PRODUCTION, 1949–50.

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
MILK USED ('000 GALLONS).							
For the manufacture of—							
Butter	171,124	305,513	219,798	35,997	31,152	25,630	789,214
Cheese	6,334	45,331	19,876	22,716	1,534	921	96,712
Condensed, Dried and other Milk Products (incl. Ice Cream)(b) ..	24,525	62,146	(a)	(a)	(a)	(a)	97,201
PRODUCTS (TONS).							
Butter	36,817	62,988	48,196	8,236	6,769	5,069	168,075
Cheese	2,827	21,193	(c) 9,050	10,587	702	418	44,777
Condensed and concentrated milk	10,927	37,942	(a)	(a)	(a)	(a)	63,509
Powdered milk—							
Full cream	6,302	3,866	(a)	(a)	(a)	..	11,390
Skim	1,604	7,398	..	(a)	..	(a)	9,279
VALUE (£'000).							
Butter	9,305	16,079	12,062	2,087	1,744	1,300	42,577
Cheese	457	3,278	(c) 1,267	1,497	111	57	6,667
Condensed and concentrated milk	738	3,832	(a)	(a)	(a)	(a)	5,984
Powdered milk—							
Full cream	1,270	585	(a)	(a)	(a)	..	2,045
Skim	121	593	..	(a)	..	(a)	731

(a) Not available for publication; figures are included in total for Australia. (b) Includes Whole Milk equivalent of cream and butter fat purchased as such. (c) Includes 172 tons of cheese valued at £23,126, made in establishments not classified as factories.

The butter, cheese and condensed milk industries are dealt with more fully in Chapter XXI.—Farmyard, Dairy and Bee Products.

30. **Meat and Fish Preserving Works.**—The industries included in this group are engaged chiefly in the freezing and preserving of meat. Works have been established at the seaports for the purpose of handling beef, lamb and mutton for export, and insulated space for the carriage of chilled and frozen produce is provided by shipping companies trading between Australia and other parts of the world. The substitution of chilled for frozen meat exported has already been referred to in Chapter XIX.—Pastoral Production. In recent years there has been considerable expansion in the canning of meat and fish.

MEAT AND FISH PRESERVING WORKS, 1949–50.

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Number of factories	8	18	20	16	17	7	86
Number of persons employed ..	665	1,582	5,279	304	507	215	8,552
Value of land and buildings £	130,633	441,242	1,732,369	98,131	533,651	79,370	3,015,396
Value of plant and machinery £	176,710	258,929	880,851	59,521	529,938	63,683	1,969,632
Salaries and wages paid £	274,317	785,145	2,637,109	110,063	275,465	83,314	4,165,413
Value of power, fuel, etc., used £	34,537	82,717	374,399	11,084	42,898	4,823	550,458
Value of materials used £	1,139,134	3,498,009	16,836,144	548,090	1,348,625	270,324	23,640,326
Total value of output £	1,735,841	5,347,707	21,170,342	853,450	1,860,915	422,163	31,390,418
Value of production .. £	562,170	1,766,981	3,959,799	294,276	469,392	147,016	7,199,634

Particulars of the quantities and values of beef, mutton and lamb preserved by cold process exported from Australia over a series of years will be found in Chapter XIX.—Pastoral Production.

31. **Breweries.**—(i) *Details for each State.* The following table gives particulars of breweries in each State for the year 1949–50. It should be noted, however, that the data shown below are not strictly comparable throughout, owing to the inability or failure of some breweries to furnish a separate return for each branch of activity. Consequently the figures for some States include details of employment, wages, output, etc., not connected with the brewing of beer, although associated with it. These extraneous activities include cooperage, malt works, aerated waters, etc.

BREWERIES, 1949–50.

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W.Aust.	Tas.	Australia.
Number of factories	6	7	6	5	4	2	30
Number of persons employed ..	1,493	1,885	582	614	(a)	(a)	5,258
Value of land and buildings £	1,299,341	756.370	650,724	262,484	(a)	(a)	3,507,166
Value of plant and machinery £	762,746	1,283,068	557,181	535,819	(a)	(a)	3,622,860
Salaries and wages paid £	796,172	1,088,757	284,353	343,208	(a)	(a)	2,896,261
Value of power, fuel, etc., used £	278,142	169,682	69,435	79,297	(a)	(a)	704,339
Value of materials used £	2,226,361	2,625,705	611,755	809,820	(a)	(a)	7,583,454
Total value of output (b) £	5,300,803	4,826,651	1,549,856	1,530,456	(a)	(a)	15,850,582
Value of production .. £	2,796,300	2,031,264	868,666	641,339	(a)	(a)	7,562,789

(a) Not available for publication; figures are included in total for Australia. (b) Excludes Excise Duty.

(ii) *Total for Australia.* The next table shows the extent of this industry for 1938–39 and the five years 1945–46 to 1949–50 :—

BREWERIES : AUSTRALIA.

Items.	1938–39.	1945–46	1946–47.	1947–48.	1948–49.	1949–50.
Number of factories	34	33	33	32	32	30
Number of persons employed ..	3,698	4,121	4,516	4,677	5,007	5,258
Value of land and buildings £	2,801,147	3,185,582	3,215,403	3,241,603	3,328,699	3,507,166
Value of plant and machinery £	2,737,042	2,484,442	2,617,866	2,795,685	3,203,682	3,622,860
Salaries and wages paid £	1,215,473	1,586,366	1,805,196	2,029,578	2,489,100	2,896,261
Value of power, fuel, etc., used £	251,286	351,184	425,596	452,699	570,632	704,339
Value of materials used £	3,406,572	4,255,684	4,998,158	5,108,560	6,212,981	7,583,454
Total value of output £	9,030,309	10,476,340	12,267,499	11,954,243	13,526,477	15,850,582
Value of production £	5,372,451	5,869,472	6,843.745	6,392,984	6,742,864	7,562,789

The quantity of ale, stout and beer brewed fell from 73.7 million gallons in 1928–29 to 49.8 million gallons in 1931–32, but thereafter increased each year to 109.2 million gallons in 1941–42. Under the Control of Liquor Order which operated between March, 1942 and March, 1946, the production of beer was restricted and consequently output remained static at about 100 million gallons from 1942–43 to 1944–45. Production rose to 154 million gallons in 1949–50 and to 173 million gallons in 1950–51.

The average annual consumption of ale, stout and beer prior to the economic depression of the early thirties exceeded 11 gallons per head of the population; it dropped to 7.32 gallons in 1931–32, increased to 13.76 gallons in 1941–42 and declined again to about 13 gallons during the period of control. The consumption per head increased to 18.23 gallons in 1949–50 and to 19.73 gallons in 1950–51.

(iii) *Materials Used and Production.* The table below shows the quantities of raw materials used and the quantity and value of ale, stout and beer brewed in each State during 1949–50 :—

BREWERIES : MATERIALS USED AND PRODUCTION, 1949–50.

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
RAW MATERIALS USED.							
Malt .. bushels	1,587,665	1,550,126	472,435	(a)	554,651	(a)	4,801,636
Hops .. lb.	1,321,337	1,060,133	342,689	(a)	337,088	(a)	3,583,623
Sugar .. cwt.	236,640	176,800	58,060	(a)	34,560	(a)	576,380
RAW MATERIALS USED PER 1,000 GALLONS OF ALE, STOUT AND BEER PRODUCED.							
Malt .. bushels	29.02	31.41	31.29	29.88	35.69	39.32	31.14
Hops .. lb.	24.15	21.48	22.70	28.24	22.09	20.82	23.24
Sugar .. cwt.	4.33	3.58	3.85	4.00	2.26	2.21	3.74
ALE, STOUT AND BEER BREWED.							
Quantity gallons	54,704,328	49,350,786	15,099,167	(a)	15,260,125	(a)	154,188,627
Value (b).. £	5,213,262	4,786,111	1,544,662	(a)	1,974,077	(a)	15,546,310

(a) Not available for publication; figures are included in total for Australia. (b) Excludes Excise Duty.

32. **Distilleries.**—Distilleries are located in all the States except Tasmania. The following table, which has been compiled from returns of the Excise Branch of the Department of Trade and Customs, shows the materials used in distilleries in Australia and the quantity of spirits distilled therefrom for the years 1945–46 to 1949–50 compared with the year 1938–39.

DISTILLERIES: AUSTRALIA.

Particulars.	Unit of Quantity.	1938–39.	1945–46.	1946–47.	1947–48.	1948–49.	1949–50.
PRINCIPAL MATERIALS USED.							
Barley Malt	bus.	89,528	296,002	349,070	340,000	337,211	261,443
Barley	,,	80,548	208,847	263,460	172,644	187,483	182,450
Wheat	,,	..	108,590	90,503	16,497	85,678	67,744
Malted Wheat ..	,,	..	46,912	27,190	27,900	31,338	28,074
Maize	,,	7,643	58,688	15.532	52,640	57,710	6,344
Molasses	cwt.	1,405,271	1,158,439	1,808,517	1,849,988	2,549,721	2,335,378
Sugar	,,	..	522.982	86,433	44,655		
Sugar Syrup	,,	..	240,216	100,294	91,204	45,852	
Wine	gal.	11,364,208	15,749,146	19,804,495	18,916,227	21,814,262	20,678,189
Raisins	cwt.	19,521	14,477	47,386	36,690	27,423	46,876
SPIRITS DISTILLED (PROOF GALLONS).							
From—							
Barley and other Grain Malt		434,578	1,836,659	1,978,708	1,782,439	(a)	(a)
Molasses and Sugar		7,025,416	11,842,105	10,959,334	10,672,356	(a)	(a)
Wine and Wine Lees		2,249,265	2,879,030	3,440,071	3,983,384	(a)	(a)
Other		7,305	105,117	143,971	270,978	..	..
Total		9,716,564	16,662,911	16,522,084	16,709,157	19,380,191	20,114,905
Spirits denatured		4,553,152	8,780,290	8,288,830	7,819,271	9.838,298	11,427,706

(a) Not available separately.

33. **Tobacco, etc., Factories.**—(i) *Details for each State.* During 1949–50 there were 37 establishments in which the manufacture of tobacco, cigars or cigarettes was carried on. There are no such factories in Tasmania.

TOBACCO, CIGAR AND CIGARETTE FACTORIES, 1949–50.

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Australia.
Number of factories	14	15	6	1	1	37
Number of persons employed ..	2,771	2,041	(a)	(a)	(a)	5,167
Value of land and buildings £	709,045	512,064	(a)	(a)	(a)	1,275,897
Value of plant and machinery £	502,538	500,369	(a)	(a)	(a)	1,060,076
Salaries and wages paid £	1,068,637	810,182	(a)	(a)	(a)	1,992,095
Value of power, fuel, etc., used £	62,731	23,178	(a)	(a)	(a)	88,461
Value of materials used £	9,665,350	5,029,209	(a)	(a)	(a)	15,016,360
Total value of output £	11,536,427	6,927,956	(a)	(a)	(a)	18,974,086
Value of production .. £	1,808,346	1,875,569	(a)	(a)	(a)	3,869,265

(a) Not available for publication; figures are included in total for Australia.

(ii) *Total for Australia.* This industry was among the first to be established in Australia. In 1861 New South Wales had eleven factories and Victoria one. The Australian market has for many years been largely supplied with local manufactures from the imported leaf. Imports during 1949–50 comprised—manufactured tobacco 773,772 lb., cigars 34,599 lb., and cigarettes 8,273,974 lb., and the quantities manufactured in

Australian factories were respectively 20,168,000 lb., 169,000 lb., and 10,341,000 lb. The following tables show the extent of the industry in Australia for the five years 1945–46 to 1949–50 compared with 1938–39 :—

TOBACCO, CIGAR AND CIGARETTE FACTORIES : AUSTRALIA.

Items.	1938–39.	1945–46.	1946–47.	1947–48.	1948–49.	1949–50.
Number of factories	30	26	31	33	37	37
Number of persons employed ..	5,544	5,255	5,641	5,470	5,219	5,167
Value of land and buildings £	1,041,798	959,192	1,159,772	1,143,363	1,174,503	1,275,897
Value of plant and machinery £	942,644	723,962	840,171	932,616	1,008,889	1,060,076
Salaries and wages paid £	1,095,912	1,300,481	1,536,796	1,676,954	1,827,819	1,992,095
Value of power, fuel, etc., used £	34,483	52,174	61,127	62,339	73,941	88,461
Value of materials used £	7,080,574	10,602,035	13,657,489	14,492,198	13,750,779	15,016,360
Total value of output £	9,800,413	13,042,558	16,364,165	17,915,412	17,613,106	18,974,086
Value of production .. £	2,685,356	2,388,349	2,645,549	3,360,875	3,788,386	3,869,265

LEAF USED AND PRODUCTION ('000 lb).

Leaf used—						
Australian (stemmed) ..	4,489	4,685	3,611	2,924	3,084	3,313
Imported (stemmed) ..	16,011	18,822	23,441	23,675	22,775	24,043
Tobacco made	16,305	17,901	20,190	19,715	19,256	20,168
Cigars made	238	125	139	163	169	169
Cigarettes made	6,731	8,482	10,082	10,147	9,701	10,341

For many years the production of locally-grown leaf was comparatively small, and manufacturers were dependent on imported leaf for the supply of their raw material. Increased import duties stimulated local production, and the quantity of Australian leaf used by manufacturers rose from 1.2 million lb. in 1929–30 to over 3 million lb. in 1930–31. During the 1939–45 War about 4.7 million lb. of Australian-grown leaf was used annually, but in subsequent years the figure fell to the 1949–50 level of 3.3 million lb. In this connexion, *see* Chapter XX.—Agricultural Production.

34. **Sawmills, etc.**—(i) *Details for States.* The most important industry in Class X. is that of sawmilling. Because of difficulties associated with the classifying of sawmills into forest and town, they have been combined in the following tables, together with plywood and bark mills.

SAWMILLS, PLYWOOD AND BARK MILLS, 1949–50.

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Number of factories	949	576	607	84	198	367	2,781
Number of persons employed ..	9,968	6,250	7,882	1,922	3,121	2,350	31,493
Value of land and buildings £	1,752,504	1,038,831	710,587	439,329	336,782	198,919	4,476,952
Value of plant and machinery £	2,291,315	1,692,093	1,418,743	287,845	776,664	610,668	7,077,328
Salaries and wages paid £	3,760,785	2,544,600	2,945,346	805,487	1,127,411	847,215	12,030,844
Value of power, fuel, etc., used £	252,901	196,647	156,934	36,101	94,096	67,629	804,308
Value of materials used £	10,092,366	6,106,707	4,591,696	2,815,358	1,804,228	1,609,221	27,019,576
Total value of output £	17,079,311	10,990,699	9,309,052	4,354,528	3,756,694	3,060,691	48,550,975
Value of production .. £	6,734,044	4,687,345	4,560,422	1,503,069	1,858,370	1,383,841	20,727,091

(ii) *Total for Australia.* Comparative statistics for 1938–39 and 1945–46 to 1949–50 are shown in the following table :—

SAWMILLS, PLYWOOD AND BARK MILLS : AUSTRALIA.

Items.	1938–39.	1945–46.	1946–47.	1947–48.	1948–49.	1949–50.
Number of factories	1,660	1,765	1,996	2,241	2,541	2,781
Number of persons employed ..	19,104	22,591	25,723	27,811	30,067	31,493
Value of land and buildings £	2,054,611	2,523,249	2,840,497	3,291,577	3,824,676	4,476,952
Value of plant and machinery £	2,785,716	3,460,945	4,079,916	4,677,370	5,715,512	7,077,328
Salaries and wages paid £	3,634,627	5,841,968	7,119,598	8,537,051	10,401,646	12,030,844
Value of power, fuel, etc., used £	225,782	375,437	449,405	534,171	656,563	804,308
Value of materials used £	8,522,895	12,174,016	16,001,148	19,971,233	23,428,182	27,019,576
Total value of output £	14,537,888	21,707,972	27,889,108	34,958,061	41,590,009	48,550,975
Value of production .. £	5,789,211	9,158,519	11,438,555	14,452,657	17,505,264	20,727,091

The sawmill output of native timber, which declined from 740 million super. feet in 1925–26 to the abnormally low figure of 237 million super. feet during the depth of the depression, recovered to 717 million super. feet in 1938–39 and rose to 1,223 million super. feet in 1949–50. Further reference is made to the sawmilling industry in Chapter XXII.—Forestry.

35. **Cabinet and Furniture Making and Upholstery Factories.**—These industries constitute the principal manufactures in Class XI. The following table shows particulars for each State in 1949–50 :—

CABINET AND FURNITURE MAKING AND UPHOLSTERY FACTORIES, 1949–50.

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W.Aust.	Tas.	Australia.
Number of factories	418	454	194	107	141	65	1,379
Number of persons employed ..	5,307	4,588	2,579	1,545	1,182	574	15,775
Value of land and buildings £	1,221,910	1,239,015	458,308	285,828	254,846	107,227	3,567,134
Value of plant and machinery £	433,917	363,676	182,364	138,091	115,138	37,657	1,270,843
Salaries and wages paid £	2,152,868	1,712,404	858,420	570,000	390,406	186,936	5,871,034
Value of power, fuel, etc., used £	45,058	36,486	15,965	16.865	8,462	2,998	125,834
Value of materials used £	3,609,995	2,972,402	1,496,952	1,010,493	684,262	206,524	9,980,628
Total value of output £	7,083,022	5,912,311	2,889,525	1,921,873	1,335,778	501,733	19,644,242
Value of production .. £	3,427,969	2,903,423	1,376,608	894,515	643,054	292,211	9,537,780

36. **Printing Works.**—Printing and bookbinding works rank high in importance among the industries of Australia and in 1949–50 afforded employment for 34,213 employees, and paid £15,169,000 in salaries and wages, while the value of output amounted to £49,664,000. The first table below gives particulars of establishments engaged in general printing in each State for 1949–50. These establishments include those engaged in lithographic printing, bookbinding, paper ruling and linotyping and Government printing works. Establishments producing newspapers and periodicals are shown separately in the second table to follow :—

GOVERNMENT AND GENERAL PRINTING WORKS, 1949–50.

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W.Aust.	Tas.	Australia.
Number of factories	409	427	100	65	74	17	1,092
Number of persons employed ..	8,420	7,517	2,230	1,517	1,243	563	21,490
Value of land and buildings £	2,214,323	2,070,421	390,460	314,558	271,353	87,436	5,348,551
Value of plant and machinery £	2,274,332	2,047,659	368,776	446,580	253,779	117,706	5,508,832
Salaries and wages paid £	3,610,723	3,222,725	824,460	583,256	437,249	231,370	8,909,783
Value of power, fuel, etc., used £	83.791	71,656	18,046	13,313	11,860	4,357	203,023
Value of materials used £	4,490,082	4,203,553	953,724	635,083	525,635	203,880	11,011,957
Total value of output £	10,732,746	9,567,509	2,294,001	1,572,995	1,370,171	555,672	26,093,094
Value of production .. £	6,158,873	5,292,300	1,322,231	924,599	832,676	347,435	14,878,114

NEWSPAPERS AND PERIODICALS, 1949–50.

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W.Aust.	Tas.	Australia.
Number of factories	177	117	57	34	32	7	424
Number of persons employed ..	5,993	3,125	1,729	909	653	314	12,723
Value of land and buildings £	2,122,842	901,989	590,678	433,344	274,196	54,615	4,377.664
Value of plant and machinery £	1,989,327	1,599,025	656,110	163,875	200,143	84,036	4,692,516
Salaries and wages paid £	2,977,460	1,603,167	768,466	445,670	309,300	155,253	6,259,316
Value of power, fuel, etc., used £	108,119	48,674	32,276	15,921	15,759	4,652	225,401
Value of materials used £	5,992,361	3,434,471	1,112,749	754,954	509,240	140,212	11,943,987
Total value of output £	12,208,921	5,926,473	2,529,340	1,591,362	1,168,801	346,589	23,771,486
Value of production .. £	6,108,441	2,443,328	1,384,315	820,487	643,802	201,725	11,602,098

37. **Paper Making.**—Although the paper manufacturing industry has been established in Australia for many years it was not until the manufacture of paper pulp from indigenous timber commenced in 1938–39 that any marked development occurred.

Plants producing pulp from eucalypt timber are operating in Victoria and Tasmania whilst in South Australia pulp is being produced from locally-grown softwoods. The production of pulp rose from 6,000 tons in 1938–39 to 88,000 tons in 1946–47, dropped slighty in the two succeeding years and recovered to 88,000 tons in 1949–50.

The number of factories operating in 1949–50 comprised two in New South Wales, seven in Victoria, one in Queensland, South Australia and Western Australia and two in Tasmania. In the latter State, newsprint, writing and printing papers are produced, and in the other States wrappings, other papers and boards. Particulars for this industry are shown in the following table for the years 1938–39 and 1945–46 to 1949–50.

PAPER MAKING, INCLUDING PULP MILLS : AUSTRALIA.

Items.		1938–39.	1945–46.	1946–47.	1947–48.	1948–49.	1949–50.
Number of factories ..	..	7	12	12	12	14	14
Number of persons employed ..	..	1,961	4,705	5,078	5,260	5,991	6,160
Value of land and buildings	£	849,578	1,525,187	1,659,960	1,832,994	2,520,299	3,331,186
Value of plant and machinery	£	1,712,662	2,509,426	2,923,957	3,581,740	4,040,972	5,753,609
Salaries and wages paid	£	466,548	1,577,146	1,933,049	2,350,455	2,881,436	3,183,481
Value of power, fuel, etc., used	£	200,998	598,979	752,038	849,308	940,849	998,035
Value of materials used	£	1,095,318	3,802,205	4,050,706	4,978,655	5,767,853	6,154,049
Total value of output	£	2,301,531	7,417,772	8,056,231	10,258,020	12,358,130	13,733,129
Value of production ..	£	1,005,215	3,016,588	3,817,427	4,430,033	5,649,434	6,581,045

38. **Rubber Goods.**—The following table shows particulars of this industry for each State during 1949–50 and excludes establishments engaged primarily in the retreading and repairing of tyres.

RUBBER GOODS, 1949–50.

Items.		N.S.W.	Victoria.	Q'land.	S. Aust.	W.Aust.	Tas.	Australia.
Number of factories ..	..	27	36	5	8	2	..	78
Number of persons employed ..	..	5,221	4,327	(a)	398	(a)	..	10,514
Value of land and buildings	£	771,128	1,173,510	(a)	37,063	(a)	..	2,036,163
Value of plant and machinery	£	853,631	1,233,706	(a)	84,340	(a)	..	2,220,337
Salaries and wages paid	£	2,789,677	2,297,523	(a)	163,832	(a)	..	5,482,283
Value of power, fuel, etc., used	£	340,954	402,302	(a)	15,146	(a)	..	772,237
Value of materials used	£	6,956,887	6,399,727	(a)	211,401	(a)	..	13,902,207
Total value of output	£	10,498,543	10,901,885	(a)	487,615	(a)	..	22,630,489
Value of production ..	£	3,200,702	4,099,856	(a)	261,068	(a)	..	7,956,045

(a) Not available for separate publication; figures included in total for Australia.

39. **Electric Light and Power Works.***—(i) *Details for each State.* The increased demand for electrical energy has been responsible for considerable development in electric light and power works during recent years. Since 1938–39 the production of electric light and power has increased from 4,688 to 9,509 million kWh. in 1949–50 or by nearly 103 per cent. Particulars for the year 1949–50 are as follows :—

ELECTRIC LIGHT AND POWER WORKS, 1949–50.

Items.		N.S.W.	Victoria.	Q'land.	S. Aust.	W.Aust.	Tas.	Australia.
Number of factories ..	..	92	67	45	36	115	3	358
Number of persons employed ..	..	3,968	2,294	967	1,209	1,029	128	9,595
Value of land and buildings	£	6,427,655	2,772,653	1,136,259	2,050,031	352,934	746,316	13,485,848
Value of plant and machinery	£	15,788,376	14,797,107	4,108,239	4,771,414	1,731,966	4,256,434	45,453,536
Salaries and wages paid	£	2,227,383	1,452,885	505,726	687,291	525,414	67,317	5,466,016
Value of power, fuel, etc., used	£	6,649,678	-3,347,562	2,265,444	1,698,491	1,529,818	208	15,491,201
Value of materials used	£	1,171,048	345,101	354,139	139,360	146,371	24,176	2,180,195
Total value of output	£	15,017,542	6,214,850	3,476,503	2,788,136	2,430,501	584,112	30,511,644
Value of production ..	£	7,196,816	2,522,187	856,920	950,285	754,312	559,728	12,840,248

**See also* Chapter XXV. -Electric Power Generation and Distribution—E. Statistical Summary, 1939–40 and 1949–50, pp. 1197–1200.

Particulars of the types of engines and generators installed in Electric Light and Power Works and their rated horse-power are given on page 1094.

(ii) *Production.* The increase in the production of electric light and power in each of the States since 1938–39 is shown in the following table :—

ELECTRIC LIGHT AND POWER WORKS: ELECTRICITY PRODUCED.

('000 kWh.)

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
1938–39	1,948,490	1,222,505	387,368	256,283	307,002	566,691	4,688,339
1945–46	2,831,801	1,904,403	612,672	402,134	338,799	819,958	6,909,767
1946–47	3,228,670	2,001,994	655,797	458,899	378,266	803,801	7,527,427
1947–48	3,546,345	2,250,938	750,080	519,531	402,300	872,680	8,359,874
1948–49	3,717,030	2,503,981	890,258	566,606	398,594	976,474	9,052,943
1949–50	3,758,004	2,706,081	971,630	593,808	417,499	1,061,639	9,508,661

40. **Gas-works.**—(i) *Details for each State.* Gas-works are in operation in the majority of important towns in Australia. The following table shows particulars of gas-works in each State for the year 1949–50 :—

GAS-WORKS, 1949–50.

Items.	N.S.W.	Victoria.	Q'land.	S. Aust.	W.Aust.	Tas.	Australia.
Number of factories	39	36	16	3	4	2	100
Number of persons employed ..	1,367	1,330	426	447	(a)	(a)	3,815
Value of land and buildings £	1,008,755	544,208	228,800	29,353	(a)	(a)	1,938,645
Value of plant and machinery £	3,409,687	5,210,687	917,127	1,293,500	(a)	(a)	11,055,761
Salaries and wages paid £	756,752	706,721	210,301	225,859	(a)	(a)	2,027,173
Value of power, fuel, etc., used £	724,842	56,960	16,626	3,417	(a)	(a)	844,735
Value of materials used £	3,037,438	2,610,967	548,398	585,139	(a)	(a)	7,219,956
Total value of output £	5,591,653	3,696,796	970,480	849,433	(a)	(a)	11,727,837
Value of production .. £	1,829,373	1,028,869	405,456	260,877	(a)	(a)	3,663,146

(a) Not available for publication; figures are included in total for Australia.

(ii) *Coal Used and Production.* The following table shows details for 1949–50 :—

GAS-WORKS: COAL USED AND PRODUCTION, 1949–50.

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
COAL USED.							
Coal .. .. tons	870,055	608,453	195,985	121,932	(a)	(a)	1,864,630
PRODUCTS.							
Gas produced '000 cubic ft.	17,845,995	10,746,793	2,700,399	2,026,177	(a)	(a)	34,897,963
Gas sold '000 cubic ft.	15,563,585	9,445,085	2,343,534	1,781,645	(a)	(a)	30,490,856
Coke produced (b) tons	573,607	334,875	88,971	68,988	(a)	(a)	1,094,982

(a) Not available for publication; figures are included in total for Australia. (b) In addition, 1,182,773 tons of metallurgical coke were made in Coke Works in 1949–50.

Since 1938–39, when the output of gas was 21 thousand million cubic feet, production has increased each year and reached nearly 35 thousand million cubic feet in 1949–50.

CHAPTER XXV.

ELECTRIC POWER GENERATION AND DISTRIBUTION.

The following article, which is designed to remedy a serious deficiency in the range of subjects dealt with in the Official Year Book, has been contributed by the Division of Industrial Development of the Commonwealth Ministry of National Development. The article is divided into four major parts, viz. :—A.—Introduction, which deals generally with the resources, generation and distribution, and future developments, of electric power in Australia ; B.—a part describing the Snowy Mountains Hydro-electric Scheme ; C.—a part dealing with the origins, development, present situation and new projects of electrical systems in each Australian State and Territory (internal and external) ; and D.—the Conclusion, which refers briefly and generally to plans for increased generating capacity in Australia and the tariff policies of electricity supply authorities. A Statistical Summary (E) and a Bibliography (F) re appended. The Synopsis at the beginning of this volume provides an outline in detail of the contents of the article.

A great deal of research was required in the preparation of this article, as sources of historical material were scanty. Information presented herein has been checked, wherever possible, by the organization concerned, but in spite of the care exercised in the preparation and checking of data, it is possible that errors may have occurred, and advice of any discovered would be appreciated. It should be remembered, however, that the information relates to situations existing and projects contemplated early in 1952 and may be considerably affected by changes in policy or plans, or by developments in the projects themselves.

It is intended to advance the statistical matter in this article in future issues of the Year Book, also to keep the descriptive matter up-to-date by including information on developments in works in progress and in new projects.

A. INTRODUCTION.

1. **General.**—The geographical pattern of electric power generation and distribution in Australia has been affected by two main influences—the distribution of population, with a resulting distribution of industry, and the location of fuel and water resources. The growth of population, especially in country areas, has, of course, been itself much influenced by the availability of water and fuel.

On the other hand, the extent of power development in a country depends in general on the size of the population, the degree of industrialization and the magnitude of the resources available for power production.

2. **Population.**—Between 1939 and 1949, the Australian population increased by approximately one million, to reach a total of eight million. For the latter year, the rate of growth was estimated at 3.3 per cent., of which natural growth contributed 1.4 per cent. and net migration 1.9 per cent. By far the greater portion of this increase occurred between 1945 and 1949, when both natural increase and immigration were accelerated—particularly the latter.

Australia, including Tasmania, has an area of 2,974,581 square miles. The average population density in 1949 was therefore roughly 2.7 persons per square mile. This measure, however, can be misleading in view of the very sparse population in wide areas and the great concentration in capital cities. In fact, some 89 per cent. of the total population lies to the south-east of an area enclosed by an arc drawn from a point west of Whyalla in South Australia and curving north-easterly to the Queensland coast a little north of Brisbane. Outside this area, the only significant concentrations of population are in the south-west of Western Australia and along the more northerly Queensland coast. Within it (about one-sixth of the total area of Australia) lie all the Australian capitals except Perth, and practically the whole of Australia's manufacturing activities. The density per square mile in this sector of the continent is about fifteen persons, but, again, this figure would be considerably less if the populations of the five State capital cities included in it (totalling almost four million) were excluded from the calculation.

The two principal centres of population and industry, the metropolitan areas of Sydney and Melbourne, make the greatest demands for electric power. Their growth has been associated with the development of large deposits of coal located in relatively close proximity to the source of demand. This, together with the fact that the major water resources are also located in the south-eastern portion of the Commonwealth, is of paramount significance in influencing the distribution of industrial population and the location of major electric power stations.

3. **Power Resources.**—The principal sources of energy utilized in the production of electric power in Australia are coal, water and petroleum products. This last is of least importance, being chiefly used in local stations in small country towns in which power is generated by internal combustion engines, large in number, but small in total capacity. It is also employed for stand-by and peak load plant by some central authorities. As there are no known significant oil deposits in Australia, practically all supplies of liquid fuel must be imported from external sources.

By far the most important source of energy used in the production of electric power in Australia is coal. In 1949, thermal power stations represented 82.4 per cent. of the total installed generating capacity. The balance, 17.6 per cent., was distributed between hydro and internal combustion equipment in the proportions of 13.2 per cent. and 4.4 per cent., respectively.

It has been estimated that Australia's probable coal reserves are of the order of 53,000 million tons, of which 14,000 million tons are black coal and 39,000 million tons brown or sub-bituminous coals. Whilst these reserves may appear small by comparison with those of many other countries, they are, at present, high per head of population. The known deposits are unevenly distributed throughout the continent, about 85 per cent. of the black coal reserves being in New South Wales and 95 per cent. of the brown in Victoria. However, the potential reserves in Queensland may prove as great, if not greater, than those of New South Wales, but owing to the lack of precise data it is difficult to obtain a reasonably accurate estimate of their extent.

Most of Australia is poorly supplied with water, only 15.2 per cent. receiving an annual rainfall of 30 inches and over. This is confined to the narrow coastal strip on the east coast and to Tasmania. The possibility of establishing large thermal stations in inland areas is therefore strictly limited by the lack of sufficient water for feed and condensing purposes.

The deficiency of water resources is even more significant in relation to the generation of hydro-electric power, which is thereby restricted to a very small proportion of the continent's total area. Furthermore, because of the large fluctuations which occur in rainfall, no hydro-electric plant can be depended on for a firm output, unless considerable provision is made for storage. Even in Tasmania, where the rainfall is on the whole much more uniform than on the mainland, deficient rainfall has at times caused a considerable reduction in the available water from natural storages. There are two alternatives for improving the degree of utilization, namely, additional use of unregulated stream flow or artificial storage.

Furthermore, this paucity of water necessarily causes the quantity available to be divided so that the various uses for which it is required—domestic, stock, irrigation, power generation, etc.—shall receive their due proportion. In a project which combines irrigation and power generation as its objective, therefore, power can only be produced when water is released from the storage for irrigation—unless the scheme provides for additional storage below the power station, or the flow is sufficient to permit continuous generation of power and the water not used for irrigation can therefore be allowed to run to waste. Furthermore, where a scheme is designed primarily for irrigation, power production is normally limited to the period (of, say, six months in a year) when water is released for this purpose, which is often the time when the demand for electric power is at a minimum.

The only region on the mainland of Australia where land is high enough to receive reliable winter snowfall, and from which reasonably constant water supplies throughout the year can therefore be expected, is the mountain chain which stretches from the high plateaux of south-eastern New South Wales through to the north-eastern highlands of Victoria. The hydro-electric potential of this area is considerable, and plans have been formulated to develop approximately 3,289,000 kW. within the next 25 years, of which 789,000 kW. should be available by 1960. The two major construction schemes in this area are the Snowy Mountains and Kiewa projects. Other hydro-electric potential does exist on the mainland on the rivers of the coastal areas of New South Wales and Queensland, but the amount there available is only a small proportion of the potential of the Alpine region.

In Tasmania hydro-electric resources have been estimated at about 50 per cent. of the total Australian hydro-electric potential. Whereas on the mainland the chief source of energy is coal, water occupies this position in Tasmania. However, because of its insular position, that State's electric power potentialities must at present be considered apart from those of the mainland, although their indirect contribution to the Australian economy as a source of power for basic industries is quite substantial. Improvements in transmission techniques may some day make possible a direct contribution.

A study of the map on page 1171 reveals a significant distribution of the resources required for the generation of electric power. When the resources of Tasmania are excluded, the pattern is broadly symmetrical. In close proximity to Sydney lie great black coal deposits, while the most extensive brown coal deposits are located near Melbourne ; roughly equidistant from these two large centres of population and industry is found the mountainous region which contains most of the available hydro-electric potential.

From a geographical point of view, this concentration of energy resources is disproportionate ; from an economic point of view, however, when considered in relation to the distribution of other resources and to other factors, it has a direct bearing on the general pattern of Australia's development.

4. **Electric Power Generation and Distribution.**—(i) *Ownership of Undertakings.* At the beginning of this century, Australia's electrical undertakings were carried on mainly by private enterprise, but some measure of governmental control was exercised through various electric light and power Acts. This legislation was designed to provide standards of safety, and to define the scope and obligations of the private organizations engaged in production of electric power for sale. As the demand for power increased, particularly from manufacturing industries, supply facilities were expanded and the industry grew rapidly. A trend towards public ownership commenced during the 1914–18 War and became more pronounced after the 1939–45 War. By 1952, all major generating stations supplying the public were, in varying degrees, under the control of State statutory organizations, constituted with the object of unifying and co-ordinating the generation and distribution of electricity supplies in the various States. There are, however, still a large number of small private and municipal enterprises generating power for supply to country towns, but, where practicable, central authorities are extending supply to these places. In many areas, however, it has been and remains the practice for central authorities to sell power in bulk to local distributing organizations who undertake local reticulation.

In addition to the private, local government and statutory organizations who generate and/or distribute electricity for sale, there are numerous firms generating power for use in their own establishments, particularly those firms engaged in mining pursuits remote from the main centres of population. As this article is intended primarily to cover the activities of central electric stations, and as power regularly produced for such internal consumption is a relatively small proportion of total power produced, only incidental reference is made to firms generating electricity for consumption within their establishments.

(ii) *Power Production.* In the twenty year period 1928–29 to 1948–49, production of electric power in Australia increased by nearly 300 per cent., from 2,286 to 9,053 million kilowatt hours. A comparison of the relative amounts produced in each State is shown in the following table :—

PROPORTION OF ELECTRIC POWER PRODUCED IN EACH STATE.

(Per Cent.)

Year.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Total.
1928–29	42	29	4	7	5	13	100
1948–49	41	28	10	6	4	11	100

During the 1920's, demand increased very rapidly as supply was extended to new areas and electricity usage considerably diversified. In that period, consumption increased at a rate of 15 per cent. per annum compound, which amounted to a doubling of the load each five years. As the net population increase averaged a little less than 2 per cent. per annum, this was not a significant contribution to the comparatively rapid increase in consumption.

During the depression of the early '30's, demand remained fairly constant, but from 1934 to 1939, as industrial activity regained momentum, consumption increased rapidly each year at a rate of from 8 to 10 per cent. per annum compound. During the 1939–45 War, power restrictions were imposed on commerce and industry, very few houses were built and, in general, new domestic electric appliances were either in short supply or not available. Despite these conditions, consumption continued to increase, but this was due mainly to rising demand caused by war production.

Since the 1939–45 War industry and commerce have expanded rapidly, many new houses have been built and the population has increased by approximately 8 per cent. These factors, together with extension of electricity supplies to rural areas and the increased use of domestic electric appliances, have all contributed to bring about a position where the inflated demand for power cannot be satisfied by the existing installed capacity of central generating stations. For example, average consumption per head per annum in 1950 exceeded 1,000 kWh., compared with approximately 500 kWh. before the war. During the period 1939–40 to 1949–50, the capacity of electrical machinery installed by secondary industries and utilizing purchased electricity, increased by 118 per cent., namely, from 1.1 million horse-power to 2.4 million horse-power.

Notwithstanding the fact that production of electric power nearly doubled in the decade between 1938–39 and 1948–49, all States have found it necessary to introduce some form of power rationing, particularly during the winter peak period. The main cause of the inadequate supply was, and continues to be, the lack of sufficient generating capacity, a situation which originated in the restriction of development programmes during the 1939–45 War. Rationing has in some States also been partly due to inadequate coal supplies, particularly in those dependent on New South Wales coal.

(iii) *Generating Capacity.* In 1949, installed generating capacity in Australia totalled approximately 2.1 million kW. compared with 1.7 million kW. in 1939, an increase of about 24 per cent. This represents 0.28 kW. and 0.24 kW. per head of population in 1949 and 1939 respectively, while the total population increased by 14 per cent. in this period. Had demand per head remained constant, the increase in installed capacity would have been adequate to cater for the additional consumption by the larger population. However, the factors already mentioned have caused demand to be considerably in excess of supply or potential supply, especially during the winter.

This situation has been met in part by the increased use of available plant. In 1939 each kW. of installed capacity produced an average of 3,000 kWh. per annum, compared with an average of 4,400 kWh. in 1949. These figures are based on Commonwealth totals; figures for the States vary, depending on such factors as the distribution of demand, number of consumers, and type of equipment employed. In Tasmania, for example, average outputs per kW. installed were 5,000 and 5,400 kWh. in 1939 and 1949 respectively, compared with 2,300 and 3,600 kWh. in South Australia.

With a view to further decreasing the gap between demand and supply and reducing peak loads, electricity authorities have introduced differential tariffs, zoning in some areas, and restrictions on the use of certain electrical appliances. However, particularly in New South Wales and Victoria, the absence of reserve plant has led to frequent "black-outs" in recent years because of the inability to handle winter or abnormal peak loads.

5. **Future Developments.**—(i) *Power Supply and Demand.* Each central authority has embarked upon constructional programmes to overcome the lag between supply and demand. However, industrial and commercial expansion has continued on a high level, and several projects have been commenced or planned in various parts of the Commonwealth for suburban and main railway line electrification. Other fields directly connected with the demand for power, such as house building, must be taken into account.

Increases in population, even if unaccompanied by increases in consumption of power per head, would result in overall increases in consumption. The rise in industrial demand, which was very great during the period 1930–1950, may be expected to continue, even though the rate of increase slows down; this will further add to the demand for power.

(ii) *Thermal-Hydro Comparison.* The increasing relative importance of the generation of electric power from water resources is illustrated by the following expected changes in proportion between steam, hydro and internal combustion installed generating capacity over the period 1949 to 1960, viz. :—Steam, from 82 per cent. to 71 per cent.; hydro, from 13 per cent. to 26 per cent.; internal combustion, from 5 per cent. to 3 per cent. Although it is evident that, unless there is revolutionary change in the ways of using resources for producing electric power, hydro generated electricity will remain of lesser importance than that generated by steam, its contribution will become more significant as existing potential is developed and problems connected with the transmission of power over relatively great distances are overcome. Furthermore, in comparison with thermal generated power, the cost of generation per unit is substantially lower, although increases in capital costs of large hydro-electric projects may raise the overall costs of production to a level not much lower than that prevailing for thermal generated power.

6. **Summary.**—The major portion of Australia's power resources, namely, her coal deposits and hydro-electric potential, are concentrated in the south-eastern section of the continent, an area comprising approximately one-sixth of the total. Closely related to this distribution of basic resources is the location of population and industry. In this area are contained 89 per cent. of the population and more than 90 per cent. of Australia's secondary industries.

In the years between 1929 and 1949, production of electric power increased by nearly 300 per cent. This increase followed the rapid growth of industrial activity, usage of electric power in new fields, and a greatly increased consumption per consumer. To-day, owing mainly to the retarding of constructional programmes during the 1939–45 War, production of electric power is insufficient to cater for demand, compelling most States to impose power rationing on industrial and domestic consumers with varying degrees of severity. In an endeavour to overcome the present unsatisfactory supply position, State electricity supply authorities have projects under construction which, if carried out according to programme, will double generating capacity in the Commonwealth by 1956.

Since 1914 there has been a consistent movement towards nationalization of the electricity supply industry, which in the post 1939–45 War period has accelerated. At present, all major power stations producing electricity for sale are, in varying degrees, under the control of statutory State commissions. Where practicable, supply is being extended in rural areas, and small private and municipal organizations generating power in country towns are being absorbed into the system of the States' central electricity supply authorities. Many municipalities, however, buy in bulk and undertake local reticulation.

Each State has problems peculiar to its own territory relative to the generation and distribution of electric power, and these will be discussed in the respective sections.

B. SNOWY MOUNTAINS HYDRO-ELECTRIC SCHEME.

1. **Geography of Area.**—The main features of the Snowy country in south-eastern New South Wales have been described earlier in this survey. It is the only part of the continent in which any altitudes exceed 7,000 feet, and in which there is a substantial area over the altitude of 6,000 feet. The precipitation which results from the presence of this barrier on the line of the prevailing winter depressions of Antarctic origin amounts to as much as 120 inches in the vicinity of Mt. Kosciusko, the highest point in Australia. The drainage from the snowfields is practically all to three systems—those of the Murray and Murrumbidgee Rivers, which flow inland, and that of the Snowy, which flows southwards to Bass Strait.

2. **Historical.**—(i) *Early Suggestions for Utilization of Snowy River.* The Murray and Murrumbidgee have been subject to control and intensive development for irrigation for many years; the Snowy, however, flows through mountainous and practically uninhabitated country until debouching onto the river flats of East Gippsland, not many miles above its mouth. It has never been controlled in any way, either for the production of power or for irrigation, and a very great proportion of its waters flow to waste into the sea.

As a result, attention has long been directed towards this river, which has the highest source of any in Australia and which conducts away a very large proportion of the waters from the south-eastern New South Wales snowfields.

As early as 1884, the possibility of diverting its waters to the parched inland plains had been suggested by the Surveyor-General, Mr. P. F. Adams, in evidence before a Royal Commission on water conservation. Subsequently, the increasing use of electricity led to investigations of its possibilities as a source of hydro-electric power. Interest shifted sporadically between these two objectives, and the Snowy was consecutively considered as a means of supplementing the flow of the great inland rivers, a source of water supply to the rapidly growing metropolitan area of Sydney, a means for developing hydro-electric power and, again, as a source of increasing agricultural production in the rich Murray and Murrumbidgee valleys.

In 1918, a Parliamentary survey was carried out by the New South Wales Public Works Department of a project to utilize the waters of the river for generation of electric power, and a report in this regard was presented to the Under Secretary of the Department on 16th January, 1920. Nothing, however, resulted from this proposition. In 1937 the British firm of Consulting Engineers, Messrs. Rendel, Palmer and Tritton, in the course of a report to the New South Wales Government, suggested a new scheme for the utilization of Snowy waters, based on building a storage dam at Jindabyne and expected to produce 220,000 kVA. of power.

The 1939–45 War, however, and the plans for post-war reconstruction, which then originated, led to a proposal by the State of New South Wales for diversion for irrigation and agricultural purposes of the waters of the Snowy to the Murrumbidgee River—a scheme in which little emphasis was placed on the generation of power. The Victorian Government proposed a counter-scheme, involving very much greater generation of power, and involving diversion, not to the Murrumbidgee, but to the Murray.

(ii) *Committee of Commonwealth and State Representatives*, 1946–1949. The Commonwealth Government, however, being seized with the national implications of these proposals, brought about a meeting in 1946 of Commonwealth and State representatives to discuss the general utilization of Snowy waters, and subsequently a Committee was set up to examine the whole question on the broadest possible basis. This Committee, in a report submitted in November, 1948, suggested consideration of a far greater scheme than any previously put forward. It involved not only the simple question of utilization of the waters of the Snowy, but a general consideration of the possible diversion of a number of rivers in the area, tributaries, not only of the Snowy, but of the Murray and Murrumbidgee. The recommendations of the Committee were generally agreed to by a conference of Ministers representing the Commonwealth and States of New South Wales and Victoria, and it was also agreed that the Committee should continue its investigations.

(iii) *Constitution of Snowy Mountains Hydro-electric Authority*, 1950. A further report was submitted by the Committee in June, 1949, as a result of which the Commonwealth Parliament passed the Snowy Mountains Hydro-electric Power Act. In the next month the Snowy Mountains Hydro-electric Authority was constituted, and thus was inaugurated the greatest engineering scheme in Australian history.

3. **Description of Scheme.**—The proposals at present being implemented fall into two groups—(i) Tumut Development and (ii) Snowy-Murray Development—each having its associated plans for hydro-electric power production. The features described hereunder may be identified by reference to the map on page 1178. It should be remembered that, as the final designs for practically every element of the scheme have not yet been completed, and in many cases will not be completed for many years, any figures which are now quoted in respect of those elements will undoubtedly be subject to modification in the future.

(i) *Tumut Development.* The central feature of this part of the plan is diversion to, and regulation of, the waters of the Tumut River, a stream at present completely unregulated, but which contributes approximately half of the flow of the Murrumbidgee River at Gundagai below the existing main storage on the Murrumbidgee at Burrinjuck. To the Tumut will be diverted the waters of the Eucumbene, a major tributary of the Snowy, and the head waters of the Tooma, a tributary of the Upper Murray. The headwaters of the Murrumbidgee itself will also be diverted to the Tumut, principally to secure desirable electric power.

A major dam is to be constructed on the Eucumbene River at Adaminaby, creating a storage of at least 3.5 million acre feet, and from this, water will be conveyed by a 15-mile tunnel to Tumut Pond on the upper reaches of the Tumut River, where it will be joined by the waters from the Tooma, diverted by racelines and tunnels. From Tumut Pond, another tunnel will convey the water to power station T.1 with an installed capacity of about 320,000 kW., and a further tunnel to power station T.2 with a capacity of 280,000 kW., thence discharging into a smaller storage at Lob's Hole.

To the Lob's Hole Reservoir will also be brought the waters of the Upper Murrumbidgee from another major storage at Tantangara, holding over 350,000 acre feet. From it, waters will be led by tunnel to power station T.3 with an installed capacity of 140,000 kW., which will discharge into a pond on the Yarrangobilly River, a tributary of the Tumut, and from Yarrangobilly Pond by further tunnel to power station T.4 with an installed capacity of 160,000 kW. which, in turn, will discharge into the Lob's Hole Reservoir.

Between the foot of the Lob's Hole storage and the top of the Blowering storage will be power stations T.5 and T.6. The total capacity of these stations will be 410,000 kW.

The Blowering storage will have a capacity of about 800,000 acre feet and at the foot of the dam will be the last of the Tumut power stations, T.7, with a capacity of some 500,000 kW., but this station will operate only when water is released for irrigation.

The total extra new water which will reach the Murrumbidgee is expected to average 565,000 acre feet per annum and the total installed capacity of the various power stations is estimated at 1,310,000 kW. (excluding T.7).

(ii) *Snowy-Murray Scheme.* The central feature of this part of the scheme is the diversion of the waters of the Upper Snowy itself from a major dam to be constructed at Jindabyne on that river, a little below its junction with the Eucumbene and the Crackenback Rivers. This reservoir will have a storage capacity of approximately 1,200,000 acre feet, and from it will run right through the Great Dividing Range a tunnel approximately 32 miles in length, finally discharging into Swampy Plains River, not far above its junction with the Murray proper.

Into this tunnel will be collected a considerable quantity of water from the very high altitude country of the Kosciusko area, and from a number of smaller tributaries of the Murray. The collection from the Kosciusko area commences at the Kosciusko Reservoir at an altitude of 5,725 feet, not many miles below the source of the Snowy. A tunnel will convey water from this reservoir to power station M.1.A. with an installed capacity of 60,000 kW., and thence to a pond on the Snowy River, at its junction with the Guthega River.

From the Guthega Pond, a further tunnel and penstock will lead to station M.1.B. with a capacity of 90,000 kW., which discharges into a pond at the junction of the Munyang and Snowy Rivers. Construction of this part of the scheme has already commenced. Munyang Pond will discharge into a tunnel leading to station M.2 H and L with installed capacity of 85,000 kW., thence into a reservoir at Island Bend on the main stream of the Snowy.

From the Island Bend reservoir, a vertical shaft, 1,000 feet deep, will lead to the main tunnel from Jindabyne reservoir previously referred to, passing on its way through power station M.3 with installed capacity of 250,000 kW. Into this main tunnel will also be collected waters from the Upper Murray tributary streams previously mentioned.

Of these, the most important is the Windy Creek–Geehi River series. A pond on Windy Creek, a small tributary of the Geehi, situated at an altitude of over 5,000 feet, will provide water through a tunnel to station M.4 with an installed capacity of 75,000 kW., thence by racelines and tunnel to station M.5.H. with an installed capacity of 40,000 kW., discharging into Geehi River pond.

A vertical shaft will lead this water into the main tunnel, passing through station M.5.L with an installed capacity of 20,000 kW. The combined waters thus collected into the main tunnel will pass through station M.6 with an installed capacity of 540,000 kW., and then discharge into a pond on Bogong Creek, another of the Upper Murray tributaries. At this point, the water is still at an altitude of nearly 2,000 feet, and the main tunnel will thence continue to station M.7 with a capacity of 540,000 kW.

From M.7 the total collected waters will flow into the Swampy Plains River at a point some seven miles, in a direct line, above its confluence with the Murray. It will be necessary, however, to provide on the Murray a further storage for the proper regulation of these waters for irrigation purposes.

The total water flowing to the Murray from these works will amount on the average to 730,000 acre feet per annum, but as 330,000 acre feet which now reaches the Murray from the Tooma will be, as indicated previously, diverted to the Tumut, the total extra water actually reaching the Murray will be, on the average, 400,000 acre feet per annum; the total installed capacity of the power stations, 1,700,000 kW.

(iii) *Race Lines.* An integral part of each development is the construction of hundreds of miles of racelines, to collect and divert water from the many streams in the area into storages and tunnels.

4. **Utilization of Power.**—The total capacity of all stations in the scheme will be of the order of 3,000,000 kW., which is greater than the present total installed capacity of all the generating stations in the Commonwealth.

If, however, the demand for power continues to increase as is expected, the major source of power must still be thermal stations. The operation of the whole scheme is dependent on the appropriate development and integration of these stations, as otherwise there would be a serious loss in ultimate economy: all economic estimates therefore postulate that thermal capacity will be expanded so as to preserve an appropriate ratio.

For the purposes of general comparison, the ratio of 38 per cent. for effective capacity of hydro power to 62 per cent. thermal has been adopted. This, however, is only tentative and may be departed from as the scheme proceeds. It has, however, been estimated with a reasonable degree of probability that the power available from the scheme will save coal to the order of five million tons annually.

The first call on the power generated under the Snowy Scheme will be by the Commonwealth Government for supply to the Australian Capital Territory of power which it needs in that area, particularly for certain projects with defence significance, and no indication can at present be given as to how great that call will be. It is not likely, however, to amount to more than a relatively small fraction of the total power available, and it has been agreed that the balance will be divided between the States of New South Wales and Victoria in a proportion of two-thirds to New South Wales and one-third to Victoria.

The project has not yet proceeded so far that plans can be formulated for the actual scheme of power distribution, but transmission lines from the Australian Capital Territory via Cooma are under construction and, whereas this is primarily to supply power from the existing New South Wales network to the operational sites for construction purposes, it is anticipated that, when station M.1.B. comes into operation, power will then be fed from that station back to the interconnected network. The original estimates for transmission costs in the proposal were based on transmission to load centres at 220,000 volts, but it is probable that much higher voltages will be used.

C. STATES AND TERRITORIES.

§ 1. New South Wales.

1. **General Historical.**—Experiments first took place with electricity in Sydney during 1860, and it was first commercially used in 1878; since then the generation and distribution of power and the responsibility for these functions have undergone considerable changes.

Initially, the supply of electricity was a purely local problem, and it was not until satisfactory techniques had been developed for transmitting electricity over longer distances that the need arose for co-ordination on a State-wide basis. Consequently, in the early stages numerous organizations, both large and small, private and public, entered the field.

A pioneer in electricity generation and supply was the Tamworth Municipal Council, which reticulated power for street lighting in 1888; during the same year the town of Young was supplied with electricity, followed by Penrith and Moss Vale (1889), Broken Hill (1890) and Redfern (by the Redfern Municipal Council), during 1891. In the city of Sydney, King-street was lighted between Elizabeth and Pitt streets during 1892. Prior to 1904, electricity was supplied in the City of Sydney by five small companies :—the Empire Electric Light Co , the Strand Electric Light Co., the Imperial Arcade Electric Light Co., the Oxford Street Electric Light Co., and the Palace Electric Light Co. These concerns and the undertakings of the Redfern Municipal Council were subsequently purchased by the Municipal Council of Sydney.

In the early days of power production, both generation and distribution were the responsibility of each authority. However, with the growth and diversification of electric power usage, two factors, interconnexion of power stations and bulk supplying, have tended to separate the function of generation of electricity from its reticulation. The first interconnexions took place in the Sydney area, when Ultimo power station, operated by the Department of Railways, was linked with Pyrmont, a station owned by the Sydney Municipal Council. In Newcastle, the Department of Railways power station at Zarra-street was connected to the Newcastle Municipal Council's electrical undertaking in Sydney-street. As a result of these power links a large proportion of the electricity supplied to domestic and industrial consumers in Sydney and Newcastle was generated by the Department of Railways.

At the same time, the practice of bulk supplying was increasing. A number of Sydney municipalities were distributing power purchased in bulk from the Department of Railways and the Electricity Supply Undertaking of the Sydney Municipal Council. The further development of this trend toward separation of generation from distribution is illustrated by the fact that in 1949 there were 67 organizations generating power, compared with 161 supplying it. It may be noted that, of these 67 generating organizations, four produced approximately 95 per cent. of the total electricity production in New South Wales.

Before establishment of the State Electricity Commission of New South Wales which was constituted under the Electricity Commission Act 1950, the major organizations responsible for the generation of electric power were the Sydney County Council, the Department of Railways, the Electric Light and Power Supply Corporation, the Southern Electricity Supply, and the Clarence River County Council. A discussion of the early history and the growth of these organizations up to 1950, and of the general pattern of electric power development in New South Wales follows. (Details of the projects under control of the Snowy Mountains Hydro-electric Authority are dealt with separately in Part B, commencing on page 1154.)

The areas of supply of the major generating authorities and the location of small generating undertakings are shown on the map on page. 1172.

2. **The Sydney County Council.**—Under the Municipal Council of Sydney Electric Lighting Act 1896, the Electricity Supply Undertaking was established in 1902 and by 1904 was reticulating electricity for domestic and industrial purposes and for street illumination. As the Act provided for construction of generating and transmission equipment to cater for an increasing load and extension of the area of supply, steps were taken to erect a power station at Pyrmont on Sydney Harbour. The initial installation consisted of three vertical engines direct coupled to alternators generating at 5,000 volts, 3-phase, 50 cycles, having a total capacity of 1,500 kW. The demand for power in the area supplied was continually increasing, necessitating frequent extensions of capacity, and by 1924 installed capacity totalled 73,500 kW. This was considered the maximum economic size for the station.

In 1925 construction was commenced on a steam station at Bunnerong on Botany Bay designed for a capacity of 150,000 kW. consisting of six 25,000 kW. units; it was completed during 1930. Boiler plant comprised eighteen boilers, each complete with stokers and mechanical draught plant. In August, 1937, a further 25,000 kW. unit was installed making the station's total capacity 175,000 kW. During 1939, Bunnerong "B" was placed in service with one 50,000 kW. unit—another 50,000 kW. unit being installed in 1941. By 1947, one more similar unit had been added, giving Bunnerong "A" and "B" an aggregate of 325,000 kW. Between 1929 and 1940, some of the older units at Pyrmont were withdrawn from service, reducing generating capacity to 49,500 kW.

On 1st January, 1936, the ownership and control of the Electricity Supply Undertaking were vested in the Sydney County Council, an organization created by the Gas and Electricity Act 1935–1941. From its two major power stations, namely Bunnerong and Pyrmont, the Council supplies electricity direct to industrial and domestic consumers and provides power for street lighting in the city and 33 suburbs. Bulk supplies are sold to a number of municipalities and to the Hawkesbury Development Company, an organization having a franchise to reticulate electricity in parts of Penrith Municipality and Colo Shire.

Originally, an area of about one square mile in the centre of the city was supplied by power converted to direct current operation. During 1930, work was commenced to change the supply to alternating current. Numerous interruptions caused the conversion programme to be retarded, but much of the rewiring has now been done, an alternating supply system has been established throughout the area, and the changeover of installations in premises is proceeding.

Power generated at Bunnerong is stepped up from 11 kV. to 33 kV. for transmission to a number of substations, where the voltage is reduced to 5 or 11 kV. for reticulation to distribution centres. Electricity from the Pyrmont station, used normally for peak load requirements during the winter months, is transmitted at 5 kV. direct to distributing centres. Bunnerong and Pyrmont are connected by cables, having a capacity of 75,000 kVA.—the system further provides for interchange of power between Pyrmont and the Railway Department's White Bay power station, and Bunnerong and the Department of Public Works' station at Port Kembla. Capacities of the interconnecting equipment of these two systems are 36,000 kVA. and 15,000 kVA. respectively. Further interconnexions exist between the systems of the Sydney County Council and the Electric Light and Power Supply Corporation.

The growth of the undertaking of the Sydney County Council between 1904 and 1949 is indicated by the following comparisons :—Installed capacity, from 500 kW. (estimated) to 375,000 kW. ; units sold, from 0.258 million kWh. to 1,112 million kWh. ; consumers, from 86 to about 300,000. The Council also supplies electricity in bulk to the municipalities of Holroyd, Ryde, Windsor, Penrith and Fairfield, the Blacktown, Baulkham Hills and Hornsby Shires, and the McKellar County District. Consumers in these areas number approximately 68,000.

The proportions of electricity usage by the various classes of consumers supplied by the Sydney County Council during the years 1944 and 1949 respectively are as follows :—Domestic, 30 per cent., 33 per cent. ; industrial, 48 per cent., 43 per cent. ; commercial, 11 per cent., 9 per cent. ; bulk, 9 per cent., 13 per cent. ; street lighting, 2 per cent. each year. Rationing of power was more severe in 1949 than in 1944, particularly for industry and commerce.

3. **The Department of Railways.**—The Department of Railways commenced the generation of electricity in 1899 with a steam power station located at Ultimo, a suburb of Sydney. It now operates four major stations, namely, Ultimo and White Bay in the metropolitan area, and at Newcastle and Lithgow. Installed capacity and units generated in 1935–36 and 1948–49 were as follows :—

NEW SOUTH WALES : DEPARTMENT OF RAILWAYS SYSTEM.

Power Station.	1935–36.		1948–49.	
	Installed Capacity.	Units Generated.	Installed Capacity.	Units Generated.
	kW.	m.kWh.	kW.	m.kWh.
Twenty-five cycle—				
Ultimo	50,000	165	60,000	300
White Bay	63,750	38	27,500	43
Fifty cycle—				
White Bay	86,000	220	86,000	398
Zarra-street(*a*)	35,000	105	77,500	358
Lithgow	7,500	14	12,500	54
Total	242,250	542	263,500	1,153

(*a*) Includes some 25-cycle generating equipment.

Initially, the Ultimo undertaking was designed to supply a 600 volt direct current service for the city trams; this was increased to 6,600 volts operating at a frequency of 25 cycles, with radial feeders to sub-stations. At a later stage, the direct current generating plant was replaced by rotary convertors for the inner city 600 volt services. The convertors were supplied from either the Ultimo alternating current plant, or, if desired, from the original section of the Department's power station at White Bay, both of which operated at a frequency of 25 cycles; the more recently constructed section of White Bay operates at 50 cycles.

The Department of Railways steam station located at Zarra-street, Newcastle was placed in service during 1917. In addition to providing power for the Newcastle electric tramways, a service inaugurated in 1923, the Department sells bulk supplies to the Greater Newcastle and Maitland City Councils, municipalities of Dungog and Singleton, shire councils of Stroud and Gloucester and the Clarence River, Macleay River, Manning River, Brisbane Water, and Oxley County Councils. The Newcastle trams were replaced by buses during 1950. At Lithgow, situated 96 miles west of Sydney, the Department operates another steam station which was placed in service during January, 1928. Power is supplied in bulk to the State Coal Mine at Lithgow and to a number of local authorities between Lawson and Dubbo. These include the Lithgow, Orange and Bathurst City Councils, Lyndhurst and Wellington Shire Councils and Dubbo Municipal Council, the Blue Mountains City Council at Katoomba, and the Blaxland Shire Council at Wallerawang near Lithgow.

4. **The Electric Light and Power Supply Corporation Ltd.**—In 1909 the Electric Light and Power Supply Corporation Ltd. commenced production of electricity from its power station at Balmain—a suburb of Sydney. The Corporation was permitted to reticulate electricity to five suburban municipalities, Ashfield, Balmain, Leichhardt, Newtown and Petersham. Present installed generator capacity of the Balmain station is 48,000 kW. During 1949 the Corporation expanded its activities by the acquisition of two other private electricity supply organizations—Parramatta and Granville Electric Supply Co. Ltd. and the Dundas Electricity Undertaking. The first mentioned organization was formed in 1913, and with purchased power served certain areas of the municipalities of Parramatta and Granville These undertakings are to be acquired by the Electricity Commission at a price to be determined by the Land and Valuation Court.

5. **The Southern Electricity Supply.**—In the eastern central area of New South Wales (*see* map on page 1172) the Southern Electricity Supply, which was formed in 1942 under the Southern Electricity (Administration) Act, No. 3 and which was administered by the Department of Public Works, operated five power stations located at Yanco, Port Kembla, Cowra, Burrinjuck and Wyangala near Cowra. These five stations, the first three steam and the latter two hydro, are interconnected to form the Southern Electricity Supply system. In addition, the Canberra power station, which is owned by the Commonwealth Department of Works, is part of the system. The Electricity Commission pays an annual rental for the station, and also owns some of the plant there. Power is transmitted by a 132 kV. line 145 miles long connecting Burrinjuck and Port Kembla, while Yanco, Burrinjuck, Wyangala and Canberra are connected by transmission lines of 66 kV. To permit an interchange of power, the system has been interconnected by 66 kV. lines with the metropolitan systems and the Department of Railway's western system at Orange. The assets, liabilities and staff of the Southern Electricity Supply were transferred to the Electricity Commission on 1st November, 1950, and the Southern system became the first part of the State's interconnected system to be owned and operated by the Electricity Commission.

The Southern system provides power in bulk to the Commonwealth Department of the Interior at Canberra and a number of local government authorities, who in turn supply electricity for domestic, industrial and street lighting purposes in their shires or municipalities. Bulk supplies are also made to the Water Conservation Irrigation Commission at Yanco, which reticulates power to towns in the Murrumbidgee Irrigation Area, including Griffith, Leeton and Yenda. In 1948–49 it purchased 16 million kWh. of energy.

Growth of the Southern Electricity Supply's system in the decade 1939 to 1949 is shown in the following table :—

NEW SOUTH WALES : SOUTHERN ELECTRICITY SUPPLY SYSTEM.

Power Station.	1939.		1949.	
	Installed Capacity.	Units Generated.	Installed Capacity.	Units Generated.
	kW.	m.kWh.	kW.	m.kWh.
Yanco	4,750	9	4,750	7
Port Kembla	14,500	37	28,000	114
Burrinjuck	20,000	(a) 30	25,800	111
Wyangala	..	..	7,500	31
Canberra	(b) 5,100	(b) 13	5,100	6
Cowra	..	..	5,000	7

(a) Restrictions were imposed during 1939 owing to drought conditions in the catchment area.
(b) Year 1938–39. Part of the plant was installed prior to linkage with the interconnected system; immediately thereafter Canberra became a stand-by station.

Proportions of units sold within the Southern Electricity Supply system to the various consumers of power are : bulk, 64 per cent. ; industrial, 32 per cent. ; retail, 3 per cent. ; and miscellaneous, 1 per cent. Organizations receiving bulk supplies reticulate electricity to domestic and industrial consumers and use some power for street lighting.

6. **The Clarence River County Council.**—On the north coast of New South Wales, the Clarence River County Council is responsible for the generation of electricity in an area stretching from Kempsey in the south to near the Queensland border (*see* map on page 1172). Richmond River (Electricity) County Council and Mullumbimby Municipal Council obtain marginal supplies from the Clarence River County Council to supplement the electricity generated in their own power stations.

The Clarence River County Council was set up in 1923, pursuant to the Local Government Act 1919, with the object of developing some of the hydro-electric potential of the Nymboida catchment. On 25th November, 1924, the station was placed in service with an installed generator capacity of 800 kW. The area of supply included the city of Grafton, the municipalities of South Grafton and Ulmarra, and the surrounding district. As the system was extended to new localities and consumption per head rose, the station's installed capacity was increased and by 1939 amounted to 4,800 kW.—the project's designed maximum output. The Council also operates a diesel stand-by station of 6,800 kW. at Lismore and a small hydro station of 300 kW. at Dorrigo, west of Coff's Harbour. Capacity at Lismore is being increased by the installation of an additional 1,000 kW. diesel unit.

Nymboida and Lismore stations are connected by a 66 kV. transmission line approximately 90 miles long, with two step-down substations *en route* at Grafton and Casino. From Nymboida the line runs south to Kempsey, where it interconnects with the Department of Railways 66 kV. system. A secondary transmission system supplies power in the County Council's area and to a number of shires and municipalities at 33 kV. (*see* map on page 1172). The municipalities of Lismore and Casino obtain power in bulk, while the Mullumbimby Municipal Council and the Richmond River (Electricity) County Council receive some of their requirements from this source. The three stations generated 49 million kWh. of energy in 1949, of which Nymboida contributed 36 million, Lismore 12 million and Dorrigo one million. A total of 13,932 consumers were connected in that year to the system, compared with 9,698 in 1940, when 25 million kWh. were generated. The total area supplied by the Council is about 10,000 square miles.

7. **Other Organizations.**—At Tamworth, approximately 190 miles north of Sydney, the Tamworth Municipal Council supplies electricity in bulk or retail to the municipalities of Manilla and Quirindi, the Shires of Cockburn, Peel, Liverpool Plains and Mai dowa, and to the Namoi Valley, New England and North-west County Councils. The Council has the distinction of being the first organization in Australia to supply electric power for street lighting, a service which was inaugurated in November, 1888. During 1907 it commenced to reticulate supplies to domestic and industrial consumers. A steam station located at Tamworth has an installed generator capacity of 16,300 kW. Energy is generated at 3.3 kV. and stepped up to 66 kV. for transmission. Power lines run north to Inverell, north-west to Narrabri, and south to Murrurundi (*see* map on page 1172). During 1950 a total of 28 million kWh. of power were generated compared with 14 million in 1945 and 12 million in 1943.

Retail supply of electricity in the Newcastle area is in the hands of the City of Newcastle Electric Supply Department. The service was inaugurated in 1894 by the Newcastle City Council and became the responsibility of the Electric Supply Department in 1897. At that time, 290 consumers used 750,000 kWh. of energy, compared with 48,000 consumers in 1947 who purchased about 192 million kWh. The Department maintains a steam stand-by station of 2,500 kW., but purchases in bulk the major portion of its power requirements from the Railways Department station at Zarra-street.

The Electric Supply Department's area of supply covers 1,270 square miles, having a population in 1947 of 209,800 persons. In addition to Greater Newcastle, territory served comprises the Shire of Lake Macquarie, and parts of the Shires of Lower Hunter, Port Stephens, Wallarobba and Kearsley. Proportions of electricity usage amongst the various classes of consumers in 1943, 1947 and 1950, respectively, were as follows :—Domestic, 18 per cent., 22.5 per cent., 30 per cent. ; commercial, 7 per cent., 8 per cent., 8 per cent. ; industrial, 73 per cent., 68 per cent., 61 per cent. ; street lighting, 2 per cent., 1.5 per cent., 1 per cent.

Numerous other authorities and private firms are active in New South Wales generating or distributing power, or both, but in general to rural districts and country towns. Some of the larger undertakings include the Oxley, Bega Valley, St. George, Northern Riverina, Southern Riverina, North-west and Brisbane Water (Gosford) County Councils, and the Broken Hill and Blue Mountains City Councils. A number of these organizations purchase their supplies in bulk from the principal supply authorities, e.g., Department of Railways and Electricity Commission. In addition, a number of large industrial organizations generate power for their own use and in some cases supply electricity to surrounding districts or contribute to the interconnected system during peak load periods.

8. **State Organization.**—(i) *Gas and Electricity Act* 1935. Prior to 1935, apart from certain provisions under the Local Government Act, there was virtually no legislation enabling supervision to be exercised over the development and co-ordination of electricity supplies in New South Wales. In 1935, however, the Gas and Electricity Act, which made some important amendments in respect of electricity supply to the Local Government Act, became law. Under its provisions, an Advisory Committee was convened for the purposes of investigating proposals involving the construction of power stations, major increases in generator capacity, erection or extension of main transmission lines and associated works. The Committee was required to report on any such proposals to the Minister for Local Government.

(ii) *The Electricity Authority of New South Wales.* Under the Electricity Development Act of 1945 the Electricity Authority of New South Wales was constituted for the stated purpose of promoting and regulating the co-ordination, development, expansion, extension and improvement of electricity supply throughout the State.

The Authority assumed the duties formerly carried out by the Electricity Advisory Committee together with certain further powers, and became responsible for the overall planning and co-ordination of electrical development throughout the State. Of major concern was the rationalization of supply areas, and, in particular, the consolidation of town and rural areas under one electricity organization. The main approach to this problem has been through the avenue of County Councils established for the purpose of distributing electricity throughout the County Districts. There are now 21 electricity County Councils in the State, ten of which have been constituted since 1947.

The Authority also administers the Rural Electricity Subsidy Scheme, introduced by the Government in 1946, under which are provided subsidies amounting in some cases to nearly 50 per cent. of the cost of rural extensions. The initial programme under the Scheme aimed at the extension of electricity supply to 24,000 farms and 9,500 other rural consumers within a period of ten years. By 1951 a total of 12,800 farms and 11,000 other rural consumers had actually been connected. The total number of farms in New South Wales is more than 70,000 and of these, some 16,000 were connected when the Scheme began. Thus about 40 per cent. of the farms in the State are now served by electricity.

The Authority also exercises control over safety standards—its functions in this sphere including the approval of prescribed electrical appliances and the licensing of electricians and electrical contractors.

The functions of the Authority are not affected by the Electricity Commission Act 1950, except in so far as the work of the Commission is not subject to the approval of the Authority.

(iii) *Electricity Commission of New South Wales.* The legislation constituting the Electricity Commission was contained in the Electricity Commission Act 1950, which also amended certain provisions of the Gas and Electricity Act 1935–1940, and repealed the Southern Electricity (Administration) Act 1942. The Electricity Commission Act empowers the Commission to acquire electricity undertakings and mentions specifically the undertakings of the Electric Light and Power Supply Corporation Ltd., and the Parramatta and Granville Electric Supply Co. Ltd., Sydney County Council, Commissioner for Railways and the Southern Electricity Supply of New South Wales. When these acquisitions are effected, it becomes the responsibility of the Commission to generate and transmit to bulk consumers. The Commission will then produce approximately 96 per cent. of the electricity for public supply and traction. However, local reticulation will remain the responsibility of separate distributing authorities, mostly controlled by local government bodies. The Southern Electricity Supply was taken over in November, 1950, and the Sydney County Council's electricity generating assets on 1st January, 1952. Arrangements have been made to acquire the other two major undertakings, which are already subject to the Commission's control in respect of the amount of electricity they are required to feed into the interconnected system. When acquisition is completed, the 79 bulk consumers of the four major organizations specified will purchase electricity in bulk from the Commission. In general, therefore, local government bodies, including the Sydney County Council, will continue to distribute electricity to consumers throughout the State, but the Commission will be responsible for the generation and transmission to these distributors and for providing the major portion of the State's requirements of electricity.

9. **Electricity Generation.**—(i) *General Position.* The following statistics show the growth of electricity generation in New South Wales between 1939–40 and 1949–50 :—Installed capacity, 790,103 kW. to 980,871 kW. ; units generated, 2,145 million kWh. to 3,758 million kWh. ; consumers, 520,000 to 784,000.

Despite the significant increase in the amount of power generated, supply has been unable to keep pace with the growth of demand—particularly since 1945. Severe restrictions have been imposed in the metropolitan area on the use of power by all classes of consumers during the winter months and to a lesser extent during other periods of the year. It has been estimated that, provided the installation of new generating capacity is maintained at present schedules, supply will be adequate to meet unrestricted demand by 1954.

(ii) *New Generating Capacity.* There are a number of works under construction in the metropolitan area and elsewhere in New South Wales which are designed to increase installed capacity. The more important projects, involving construction of new stations or extension of existing stations, and their location, are as follows :—

(*a*) *Thermal Capacity* (kW.).

Sydney Metropolitan Area.—Pyrmont " B ", 200,000 ; Bunnerong " B ", 50,000 ; Balmain, 50,000 ; White Bay, 100,000 ; Liverpool, 20,000 ; Penrith, 20,000.

Port Kembla Area.—Tallawarra (Lake Illawarra), 240,000 ; Port Kembla, 20,000.

Newcastle Area.—Lake Macquarie, 300,000 ; Maitland, 20,000.

Lithgow Area.—Wallerawang, 120,000 ; Lithgow, 22,500.

Other.—Koolkhan (near Grafton), 17,500 ; Gunnedah, 50,000.

(*b*) *Hydro-electric Capacity.*

Hume Weir—hydro-electric, 50,000 kW.—initially the New South Wales system will benefit by 25,000 kW. from this project.

By far the greater proportion of generating capacity in New South Wales, 92 per cent. of the total, is steam-operated, the balance of 8 per cent. being equally divided between hydro-electric and internal combustion plant. Considerable hydro potential does exist, however, in the Snowy Mountains area and in the rivers flowing into the Pacific Ocean along the northern coast. Surveys undertaken in the Clarence River (a northern coastal river) area have indicated that a potential of between 300,000 and 400,000 kW. exists. Plans are being formulated by which 35,000 kW. will initially be developed. Details of projected works in the Snowy region, where it is estimated that more than 3 million kW. of generating equipment can be installed, are dealt with on pages 1155-6. After Commonwealth requirements from the Snowy scheme have been met, the remaining output will be shared between New South Wales and Victoria in the proportions of two-thirds and one-third, respectively.

§ 2. Victoria.

1. **General Historical.**—Since 1919, control of the generation and distribution of electric power in Victoria has been vested in the State Electricity Commission of Victoria (known until 1921 as the Electricity Commissioners). Prior to 1919, there was no legislation to co-ordinate and unify electricity supplies throughout the State—development of electric power production being in the hands of local government authorities and private organizations. After 1896, however, authority to operate electrical undertakings and private organizations was granted pursuant to the Electric Light and Power Act or by Orders-in-Council.

Records of early achievements in the production of electricity indicate that it was first employed in 1863 at a display to celebrate the marriage of the Prince of Wales. Current was generated by Cullen chemical batteries and burnt in three arc lamps erected in the City of Melbourne. In 1878 and 1879 two firms, Sands and McDougall and the Apollo Candle Co., each imported an arc lamp and generating equipment—the power produced was used for commercial lighting.

During 1880 the Victorian Electric Light Co. was formed with a nominal capital of £2,500. A small power station, established by the Company in Russell-place, off Bourke-street, later supplied power for lighting the Eastern Market and Athenaeum Hall. In 1881, the company's assets were acquired by the Australian Electric Light Co. Two new firms commenced operations in 1883, the Australian Electric Light, Power and Storage Co. and the Indian and Colonial Edison Co. The first-mentioned firm later merged with the Australian Electric Light Co., while the latter went out of existence.

In 1886 the Australian Electric Light Co. (later reconstituted under the name of the New Australian Electric Lighting Co., with a capital of £250,000) acquired a piece of land at Richmond—present site of the State Electricity Commission's power station in that suburb—and commenced work on a station designed for an ultimate capacity of 9,000 kW. During 1891 the company secured contracts for street lighting in the suburbs of Richmond and Prahran.

In 1899, the assets of the New Australian Electric Lighting Co. were purchased by the Electric Lighting and Traction Co. of Australia Ltd. (later the Melbourne Electric Supply Co.), an organization formed specifically for the purpose of acquiring the undertakings of the foregoing company and another smaller firm, the A. C. Alcock Electric Light and Motive Power Company. The company obtained a franchise under the Electric Light and Power Act 1896 to supply electricity in certain areas of Melbourne and Geelong and for tramway traction purposes.

In 1908, the Electric Lighting and Traction Co. of Australia Ltd. changed its name to the Melbourne Electric Supply Company. From its power station at Richmond it supplied power to a large portion of the metropolitan area and to two tramway trusts, while in Geelong the company reticulated power in the city and also operated the tramway service. These undertakings continued to function after the Commission was established, but in 1924 an agreement was made which, in effect, transferred control of the stations to the Commission. In that year the company's franchises were extended by Parliament for five years. Under the terms of the agreement the company was to manage the undertakings pending acquisition by the Commission of its assets at the end of five or seven and one-half years. As part of the agreement, the Richmond station's generator capacity was increased by the installation of a 15,000 kW. unit during May, 1926. In 1930 the Commission exercised its right of purchase, and the company's Melbourne and Geelong undertakings passed to the direct control of the Commission.

During 1894, the Melbourne City Council, which had set up a department to administer its electrical undertakings, started to generate electricity at a power station at Spencer-street, City for domestic and industrial consumption and street lighting. The Council arranged to purchase the undertakings operated by various small companies located near the city's boundaries, but in the final event the purchase was effected from the Electric Lighting and Traction Co. of Australia Ltd., which, before completion of the negotiations for the sale, had taken over the smaller organizations. To cater for an increasing consumption of electric power in its area of supply, the Council at various times took steps to develop the Spencer-street power station, which, by 1951, had an installed capacity of about 44,000 kW. In January, 1941, by agreement between the Council and the Commission, this station became part of the Commission's system, operating under its control although remaining in the Council's ownership.

A third major generating and supply authority in the metropolitan area, the North Melbourne Electric Tramways and Lighting Co. Ltd., was formed during 1905 to supply electric power to Essendon, Kensington and Flemington. This organization, which also supplied energy for tramway traction purposes, was acquired by the Electricity Commission on 1st August, 1922—the tramways portion of the undertaking being passed to the Tramways Board.

Moves had been made before the turn of the century to develop electricity supply in Geelong. In 1899 an Order-in-Council covering the municipal areas of Geelong, Newtown, Geelong West and Chilwell was granted to Messrs. F. J. Leary and J. A. Dawson. This authority was later in the year transferred to the Electric Lighting and Traction Co. of Australia, the term of the order being for 30 years and due to expire during 1929. As mentioned previously, the company's Geelong undertakings were acquired by the Commission in 1930. A tramway service was inaugurated in 1912 and by 1919 the power station had an installed capacity of 1,000 kW. In that year the company changed its supply from direct current to three-phase alternating current.

At Bendigo and Ballarat, the Electric Supply Co. of Victoria was granted a franchise to generate and distribute electric power for domestic, industrial and tramway traction purposes. The company purchased the assets of existing undertakings and commenced operations at Bendigo in 1903 and at Ballarat in 1905. Tramway services were established in both cities. On 30th June, 1931, the company's undertakings were acquired by the State Electricity Commission, but the company's franchises were extended for three years under Commission financial control, full operational control being assumed by the Commission on 1st July, 1934.

2. **The State Electricity Commission of Victoria.**—(i) *Extent of System.* The foregoing outlines the picture of the development of the generation and distribution of electric power in Victoria from early times, and the gradual process of acquisition of electrical undertakings by the State Electricity Commission after its establishment in 1919. Since that date the Commission has developed a State-wide system supplying two-thirds of the State in which four-fifths of the population reside.

Included in the State generating system there were at 30th June, 1951, thirteen steam-electric, hydro-electric and diesel-electric power stations located at different centres in the State, and all interconnected in one State-wide system. The distribution system comprised 15,200 miles of high and low voltage power lines, eight terminal receiving stations and over 6,700 distribution sub-stations.

(ii) *Origin and Development.* First moves towards establishment of a State statutory authority to develop Victoria's electric power resources were taken in 1917 with the appointment by the Victorian Government of an Advisory Committee, whose objects were to " make certain investigations and report in regard to the commercial utilization of brown coal, and particularly for the purpose of generating electrical energy ". In its Report dated 25th September, 1917, the Committee, amongst other things, recommended the erection of a power station at Morwell with transmission facilities, and the creation of an appropriate authority to initiate and control the project.

As a result of the Committee's Report, a Bill was drafted and presented to Parliament on 10th December, 1918, and received royal assent on 7th January, 1919. Under the terms of this Act, three Commissioners were appointed, who took up duty on 4th March, 1919. Their powers authorized them to erect and operate electrical undertakings; to supply electricity in bulk to any corporation; to supply electricity to any person outside any area in which there was an existing undertaking; to carry on any business associated with an electrical undertaking; to make regulations as to precautions to be adopted in the use of electricity and arrange for the licensing of wiremen; and to establish and operate State coal winning projects.

In addition to these powers, the Commissioners were to enquire into and report to the Government as to the steps which should be taken to co-ordinate and concentrate all electrical undertakings in Victoria; to secure the efficient inter-connexion of such undertakings by adopting the necessary standards of plant, voltages, etc.; to encourage and promote the use of electricity for industrial purposes; to report to the Government on the prospects of establishing new industries in Victoria requiring large quantities of electrical energy; and to carry out investigations of coal deposits or hydro-potential that could be used for the generation of electrical energy.

Action was taken to investigate the practicability of utilizing the State's brown coal and water power resources for the production of electricity. In a Report dated 26th November, 1919, the Commissioners concluded, *inter alia*, that the Morwell brown coal field should be developed and a power house established thereon by 1923, with an initial capacity of 50,000 kW. As to water power, they were of the opinion that consideration of hydro-electric power schemes should be deferred until further investigations then being undertaken were completed. It was further concluded that in order to obtain maximum economy, the proposed Morwell station (its name was changed to Yallourn in 1920) and any other power house to be erected in connexion with the proposed State electric supply scheme should be interconnected with the Railways Department power station at Newport and operated under the control of a single authority.

However, no action was taken until 1948 to transfer the Railways Department's section of Newport to the State Electricity Commission—the actual transfer being effected on 21st January, 1951. Newport " A ", which operates at 25 cycles frequency, was established by the Department of Railways during 1918, providing power for the suburban electric trains—a service inaugurated in July, 1919 with the electrification of the Sandringham–Essendon line. Several additions to generating equipment were made in subsequent years and by 1948 Newport " A " had an installed capacity of 95,500 kW. At the date of its transfer to the Commission, the station's capacity was 113,000 kW.

As an alternative to early control of Newport " A " by the Commission, arrangements were made whereby the Commission would establish its own station on a site immediately adjacent to Newport " A ", thus securing economy in handling the two authorities' fuel requirements. Work on the new station, known as Newport " B ", commenced during April, 1921. Supplementing the power output of this new project, which was designed for an initial capacity of 30,000 kW. operating at a frequency of 50 cycles, Newport " A " supplied the Commission with 12,500 kW. of 25-cycle energy to assist it in catering for the increasing consumption in the metropolitan area. To convert the power from 25 to 50 cycles, a frequency changer of 12,500 kW. capacity was installed.

The Railways were already under contract to supply electricity to the Melbourne City Council and the Melbourne Electric Supply Co., both of which had installed 5,000 kW. frequency changers which came into operation during 1921. The capacity of the frequency changers in operation at 30th June, 1951, was 22,000 kW. An additional frequency changer of 30,000 kW. capacity is scheduled to be in service during 1952.

By agreement with the Railways Department, the new station, after being placed in service on 12th October, 1923, was operated in conjunction with Newport " A " station by that Department.

This arrangement remained in force until 1939, when the Commission assumed control of the operation of Newport " B ". Also in that year, the station's capacity was increased by the installation of a new 30,000 kW. unit. During the 1939-45 War, a further 48,000 kW. were installed—18,000 kW. at Newport " B " and 30,000 kW. in a new extension known as Newport " C ". Three additional 30,000 kW. units were added to Newport " C ", one each in 1946, 1948 and 1950. By 1951, the total installed generating capacity at Newport " A ", " B ", and " C " was 311,000 kW., which, added to Spencer-street (44,000 kW.) and Richmond (15,000 kW.), made a total of 370,000 kW. installed in the Melbourne metropolitan area, of which all but the 113,000 kW. in Newport " A " power station were included in the 50-cycle interconnected State generating system.

(iii) *Yallourn Power Station.* To implement one of the main purposes for establishment of the State Electricity Commission, namely, development of Victoria's brown coal resources, particularly for production of electrical energy, construction commenced in 1920 of the Yallourn power station, designed for an initial capacity of 50,000 kW., but increased within a few years by the addition of two further machines. By 1923, power was being supplied to nearby Gippsland areas from a temporary station erected for constructional activities at Yallourn itself—installation of five machines with a total capacity of 62,500 kW. was completed in 1925. Work also commenced on a double circuit transmission line of 132,000 volts (later duplicated) designed to carry the power to Melbourne, a distance of approximately 90 miles. On 24th June, 1924, power was first transmitted on a commercial basis from Yallourn to Melbourne. Main terminal stations were constructed at Yarraville and later at Richmond.

The site chosen for the power station on the bank of the Latrobe River, about 6 miles from Morwell, had numerous advantages. Adequate water was available for the station's requirements, land nearby provided a good town site, whilst, most important of all considerations, an area of one square mile, adjacent to the proposed station, contained proved reserves of brown coal totalling about 150 million tons with averages of 174 feet thickness and 33 feet overburden. By the use of mechanical methods for open-cut coal winning, the coal could be extracted and delivered to the power station at a cost of only a few shillings a ton. Development of these resources was designed to ensure to a large degree the State's independence in fuel requirements for the production of electrical energy.

Estimated to contain about 6,000 million tons of brown coal, all capable of being won by mechanized open-cut methods, the Yallourn-Morwell brown coal field forms part of the very large brown coal deposits in the Latrobe Valley, where boring has revealed approximately 18,000 million tons of brown coal capable of being won by open-cut methods of extraction.

As the Yallourn station was intended to carry the base load of the system, steps were taken to augment its capacity to keep pace with the anticipated and continually increasing demand for electric power. By 1928, a sixth 12,500 kW. unit had been installed, giving the station a total capacity of 75,000 kW. In the early 1930's construction was commenced on Yallourn "B" with a planned ultimate capacity of 100,000 kW., in four units—this project was completed during 1938, Yallourn "A" and "B" then having a total capacity of 175,000 kW. (In addition, an average of 8,000 kW. of by-product electricity is fed into the system from the Yallourn briquette factory.)

(iv) *Hydro-electric Development.* (*a*) *General.* Development of the State's hydro-electric potential, the necessity of which was foreseen in the Commissioners' initial Report of November, 1919, but deferred pending further investigations, commenced in 1922. The project selected was dependent on the waters of the Goulburn River and adjacent mountain streams in the Cerberean Range, about 65 miles north of Melbourne. These two sources of water power provided a distinct advantage in that one was mainly summer flow and the other winter flow, thus permitting the continuous generation of power. Five small stations, namely, Sugarloaf (Eildon Weir, 13,500 kW.), Rubicon (9,100 kW.), Lower Rubicon (2,700 kW.), Royston (840 kW.), and Rubicon Falls (275 kW.), were installed, totalling approximately 26,400 kW. The complete project was in service by 1929. When the new Eildon Dam has been constructed, the Sugarloaf station will be replaced by one having a total installed capacity of 135,000 kW. It will comprise two new generators, totalling 120,000 kW. capacity, while the two 6,750 kW. machines in the existing Sugarloaf power station will be re-built and re-installed at the revised rating of 7,500 kW. each.

(*b*) *Kiewa Project.* In a Report to Parliament during 1920, the Commissioners included details of a large-scale project for harnessing the Kiewa River in the valleys and tablelands of the Mt. Bogong area of the Main Dividing Range, located approximately 150 miles north-east of Melbourne. At that time the Commission was not prepared to recommend adoption of the plan, but, on the other hand, suggested further consideration of the smaller Sugarloaf and Rubicon scheme. However, during the following 17 years, hydrological investigations were carried out in the Kiewa area which greatly facilitated the subsequent planning of a major hydro-electric project.

On 12th June, 1937, a further Report was submitted to Parliament recommending adoption of a plan to provide an ultimate capacity of 117,000 kW. from the Kiewa project. The plan, which included construction of four power stations with an initial installation comprising 20,000 kW. to be in service by 1942, was approved and its provisions embodied in State Electricity Commission (Extension of Undertaking) Act 1937. Construction commenced during 1938, but the war delayed progress and it was not until September, 1944 that the first station came into partial operation with 13,000 kW.—a second unit of 13,000 kW. was placed in service in April, 1945.

The 1937 Kiewa project, prior to its submission to the Government, was critically reviewed by a group of oversea consulting engineers, and their report indicated that an enlarged scheme might be possible after further detailed investigation of the water power resources of the terrain adjacent to the Bogong High Plains. On 21st November, 1947, the Commission submitted proposals for expanding the original Kiewa scheme of 117,000 kW. to one of 289,000 kW. with an annual output, averaged over a typical period of wet and dry years, of about 986 million kWh. The greater capacity, which required provision of increased water storage and construction of two additional power stations, was planned for completion by 1956. Approval for the amended scheme was contained in the State Electricity Commission Act 1948. Work is proceeding on the project.

(v) *State Supply System.* (*a*) *Growth and Extent.* Since its inception, the Commission has gradually extended the State's system of supply so that it now serves the greater part of the Victorian population and certain towns in New South Wales, including

Albury (*see* map on page 1173). By 1929, installed capacity totalled 148,000 kW. and approximately 423 million units of power were generated in that year. Supplies of electricity were being reticulated to practically the whole of the metropolitan area, 140 country towns, and 700 farms. The Commission had erected about 1,500 miles of high voltage transmission lines, extending to Echuca, Corowa and Albury in the north to Port Fairy in the west, and to Lakes Entrance in the east. The following comparative table indicates the growth of the Commission's State system between 1929 and 1951.

VICTORIA: STATE ELECTRICITY COMMISSION SYSTEM.(*a*)

Particulars.	Year ended 30th June—			
	1929.	1939.	1949.	1951.
Installed Capacity .. .. kW.	148,000	(*b*) 281,400	478,500	510,000 (50 cycle) 113,000 (25 cycle)
Units Generated .. .. m.kWh.	423	898	2,148	2,518 (50 cycle) 193 (25 cycle)
No. of consumers (approx.) (including bulk supply areas)	230,000	368,000	500,000	553,000
Country Centres Served	140	440	720	780
Farms Served	700	4,985	14,419	17,572

(*a*) About 98 per cent. of electricity produced in Victoria is generated by the State Electricity Commission, which also supplies 95 per cent. of consumers. (*b*) Includes Geelong power station (acquired 1st September, 1930) and Ballarat power station (acquired 1st July, 1934, but not in 1939 connected with the rest of the State system); excludes Spencer-street power station, which was not connected with the State system until 1st January, 1941.

During 1950–51, electricity was reticulated to the various classes of consumers in the following proportions—domestic, 35 per cent.; commercial, 15 per cent.; industrial, 44 per cent.; public lighting, 2 per cent.; and traction (excluding railways), 4 per cent.

As stated previously, the State Electricity Commission (as it was styled from 1921 onwards) was established by legislation passed in 1918. This Act and subsequent amending legislation were consolidated in the State Electricity Commission Act of 1928, which (with later amendments) is the Act now governing the operations of the Commission. Operations of independent undertakings are governed by the Electric Light and Power Act 1928, which the Commissioner administers. Statutory powers conferred upon the Commission authorize it, *inter alia*, to own and operate equipment for the generation and transmission of electricity; to co-ordinate and unify the distribution and supply of electricity to all consumers in the State; and control the regulatory functions of the electric supply industry.

Since its inception, the Commission has acquired 78 country undertakings in addition to those acquired in the metropolitan area and in provincial cities, and carries out retail distribution throughout its area of supply, except for part of the metropolitan area where 11 municipal undertakings, operating under orders-in-council granted before the foundation of the Commission, purchase their electricity in bulk from the Commission. Bulk supply is also given to five New South Wales border municipalities and shires, Albury, Berrigan, Coreen, Corowa and Moama. There remained in 1951, 55 independent undertakings in various country towns in Victoria generating and distributing their own supplies.

(*b*) *Composition and Control of Inter-connected Generating System.* The Commission's interconnected generating system comprises three principal groups of power stations, namely :—

Steam stations.

Yallourn—burning raw brown coal ; Metropolitan and provincial stations—burning briquettes and brown coal. (Newport power station also burns black coal and oil fuel.)

Hydro stations.

Sugarloaf-Rubicon ; Kiewa.

Diesel stations.

Shepparton (partly in service in 1951) ; Warrnambool (partly in service in 1952). In meeting the total demand on the system which, of course, fluctuates throughout the day and from month to month throughout the year, each group of stations is assigned a predetermined function dependent upon the availability of power from each group and the overall economics of generation. The various stations are utilized in a combination that will most economically meet the system load at a given time.

This procedure results in an arrangement of the system on the following general lines :—

1. Yallourn power station, owing to the very low cost of extraction and ample supply of raw brown coal, is a base load station, and is operated continuously at its maximum economic capacity.
2. Metropolitan and provincial steam and internal combustion (diesel) stations—Newport (excluding Newport "A", which supplies power for the Victorian Railways), Richmond, Spencer-street, Geelong, Ballarat, Shepparton and Warrnambool—situated close to load centres, are designed to operate as peak load stations to assist in meeting the heavy, short period load. Pending the completion of extensions to Yallourn power station, a substantial proportion of the total load on the system is carried by Newport " B " and " C ".
3. Sugarloaf-Rubicon and Kiewa hydro stations are operated at all times in accordance with the availability of water. They are designed to effect, where possible, a saving of the more expensive fuels used in the metropolitan and provincial thermal stations.

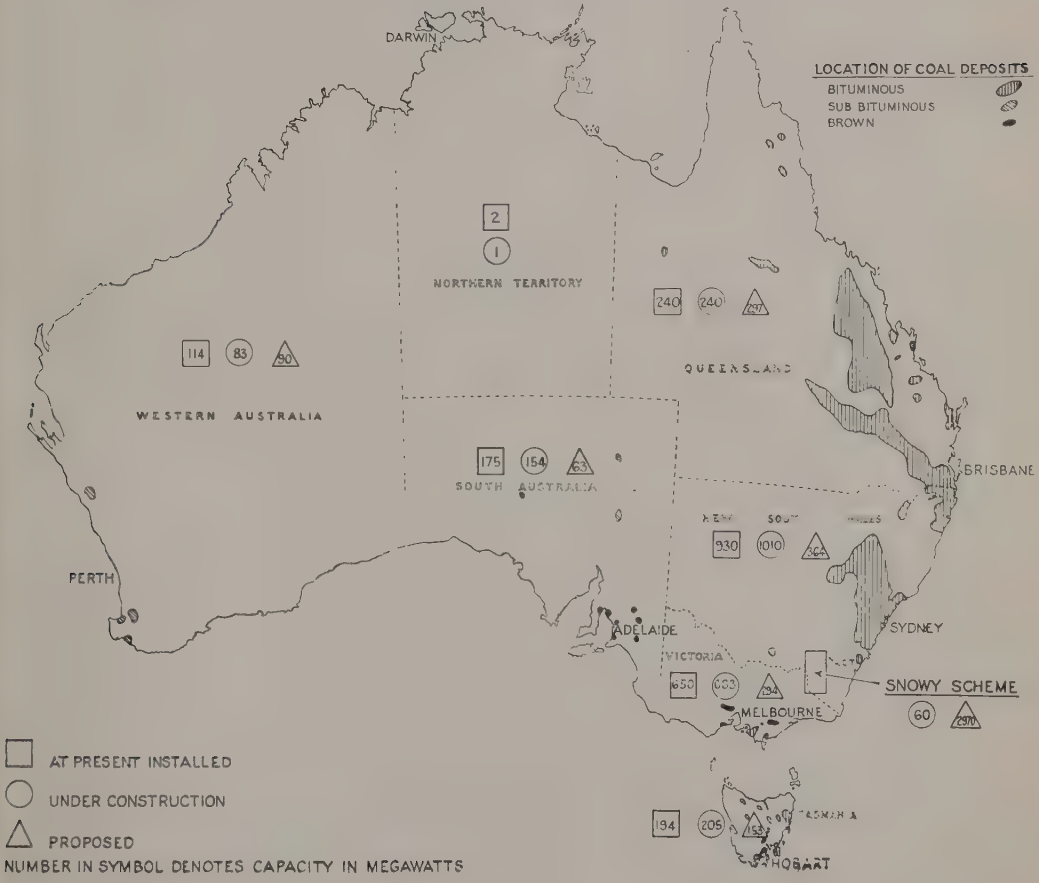
(*c*) *Organization.* In the Commission's organization, the functions of generating and distributing electrical energy are under the control of two separate departments—the Production Department in charge of power stations, brown coal winning, briquette manufacture, terminal stations and main substations, and the Electricity Supply Department, responsible for reticulation to consumers. The territory covered by the latter Department is divided into nine areas, each constituting a supply branch. The Metropolitan Branch supplies Melbourne and suburbs, with the exception of certain areas supplied by City Councils reticulating Commission electricity. Energy is supplied by the Production Department to the Metropolitan Branch and the metropolitan municipal supply authorities purchasing electricity in bulk at metropolitan terminal stations and a number of main transmission substations. Supply to the Eastern Metropolitan Branch (which has its headquarters at Dandenong) is on similar lines.

Headquarters of the Electricity Supply Department's branches outside the metropolis are located at Ballarat, Bendigo, Geelong, Dandenong (Eastern Metropolitan), Traralgon (Gippsland), Castlemaine (Midland), Benalla (North Eastern) and Colac (South Western).

Supply to the Gippsland Branch is obtained from Yallourn power station. From Yallourn 66,000 volt transmission lines extend within the branch to Maffra in the east and Leongatha in southern Gippsland, while another—from Yallourn to Warragul—is due for completion in 1952.

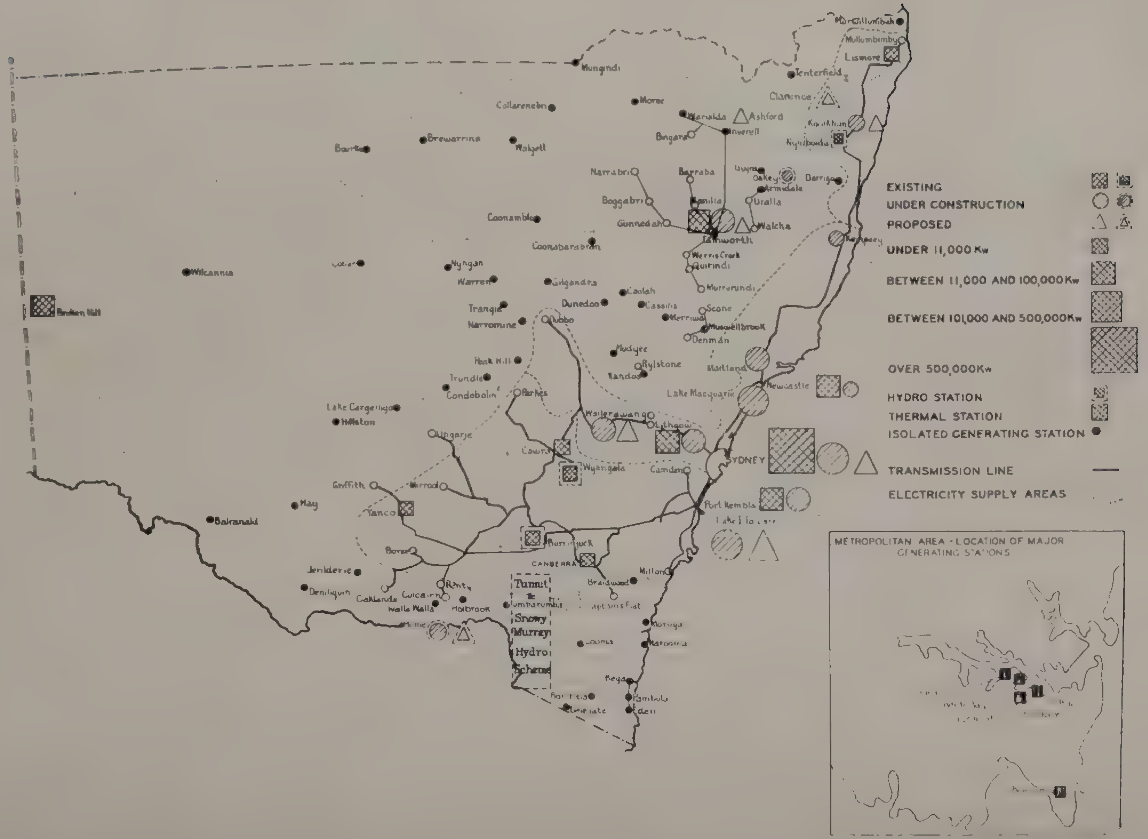
Supply to the Geelong Branch is obtained through Geelong power station and Geelong terminal station, the latter being connected with the rest of the system by a 66,000 volt transmission line to Newport power station.

AUSTRALIA - PRESENT AND FUTURE ELECTRICITY GENERATING CAPACITY


DARWIN
LOCATION OF COAL DEPOSITS
BITUMINOUS
SUB BITUMINOUS
BROWN
2
1
NORTHERN TERRITORY
240
240
297
QUEENSLAND
114
83
90
WESTERN AUSTRALIA
175
154
63
SOUTH AUSTRALIA
BRISBANE
NEW SOUTH WALES
930
1010
364
PERTH
ADELAIDE
SYDNEY
VICTORIA
650
683
194
A.C.T.
SNOWY SCHEME
60
2970
MELBOURNE
AT PRESENT INSTALLED
UNDER CONSTRUCTION
PROPOSED
NUMBER IN SYMBOL DENOTES CAPACITY IN MEGAWATTS
194
205
153
TASMANIA
HOBART

NEW SOUTH WALES

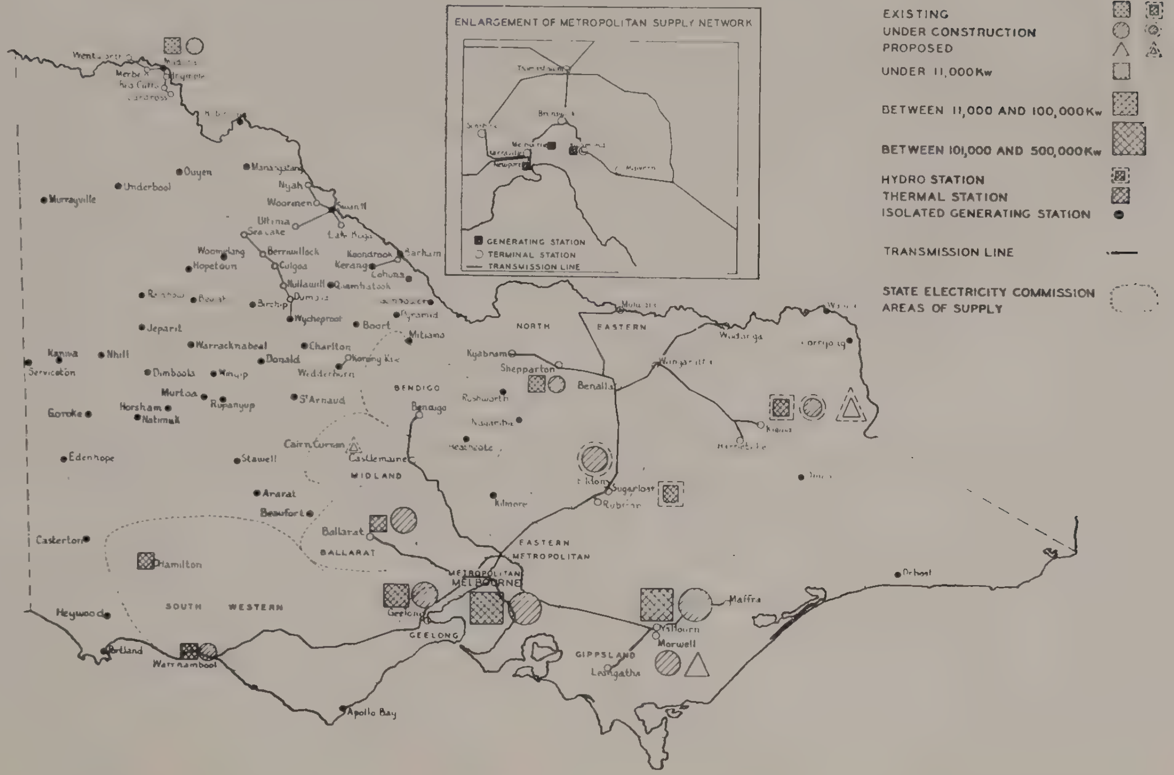
LOCATION OF ELECTRICITY GENERATING STATIONS AND MAIN TRANSMISSION LINES



EXISTING
UNDER CONSTRUCTION
PROPOSED
UNDER 11,000 Kw
BETWEEN 11,000 AND 100,000 Kw
BETWEEN 101,000 AND 500,000 Kw
OVER 500,000 Kw
HYDRO STATION
THERMAL STATION
ISOLATED GENERATING STATION
TRANSMISSION LINE
ELECTRICITY SUPPLY AREAS
METROPOLITAN AREA - LOCATION OF MAJOR GENERATING STATIONS
Murwillumbah
Mullumbimby
Lismore
Tenterfield
Clarence
Koolkhan
Nymboida
Mungindi
Moree
Collarenebri
Warialda
Ashford
Inverell
Bingara
Brewarrina
Walgett
Bourke
Narrabri
Barraba
Guyra
Oakey
Armidale
Dorrigo
Uralla
Boggabri
Manilla
Gunnedah
Walcha
Tamworth
Kempsey
Coonamble
Coonabarabran
Werris Creek
Quirindi
Murrurundi
Wilcannia
Cobar
Nyngan
Warren
Gilgandra
Coolah
Scone
Dunedoo
Cassilis
Trangie
Narromine
Dubbo
Merriwa
Muswellbrook
Denman
Broken Hill
Mudgee
Peak Hill
Rylstone
Kandos
Maitland
Newcastle
Trundle
Condobolin
Parkes
Lake Macquarie
Lake Cargelligo
Hillston
Wallerawang
Lithgow
Ungarie
Cowra
Wyangala
Camden
SYDNEY
Griffith
Narrandera
Port Kembla
May
Yanco
Balranald
Burrinjuck
Borer
CANBERRA
Jerilderie
Henty
Milton
Braidwood
Deniliquin
Corowa
Culcairn
Tumut & Tumbarumba
Captains Flat
Walla Walla
Holbrook
Snowy Murray Hydro Scheme
Moruya
Hume
Cooma
Narooma
Bega
Bombala
Pambula
Eden

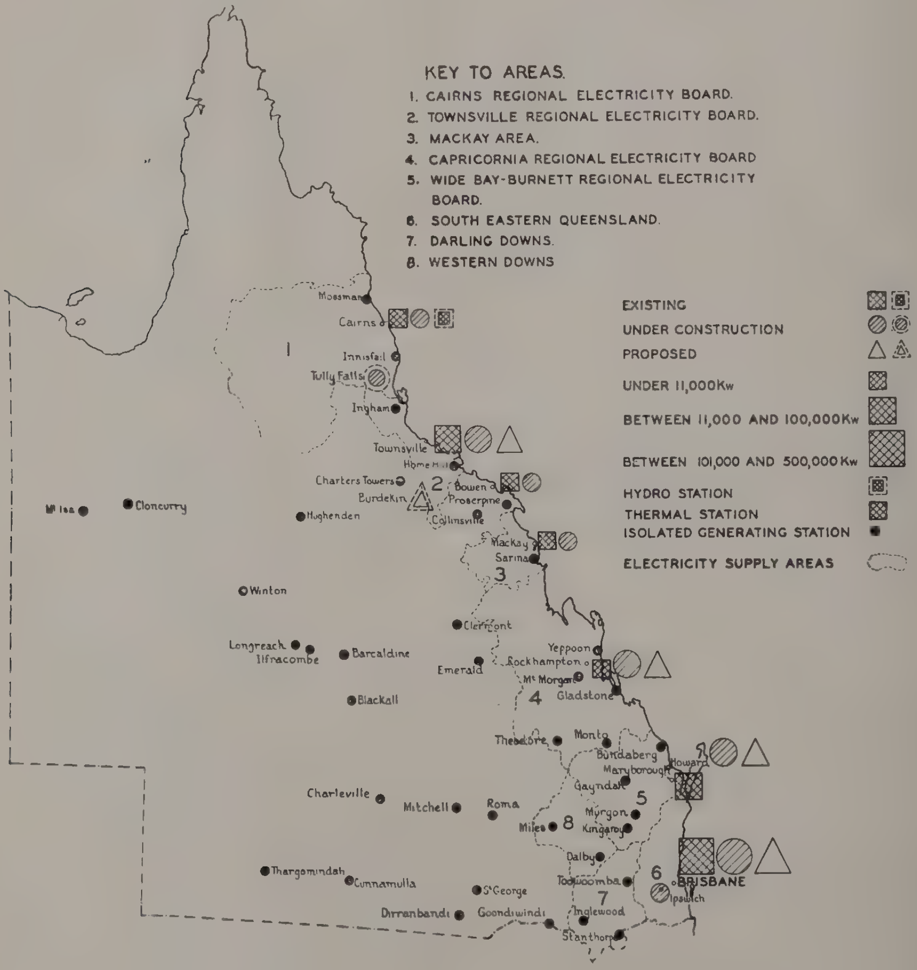
VICTORIA

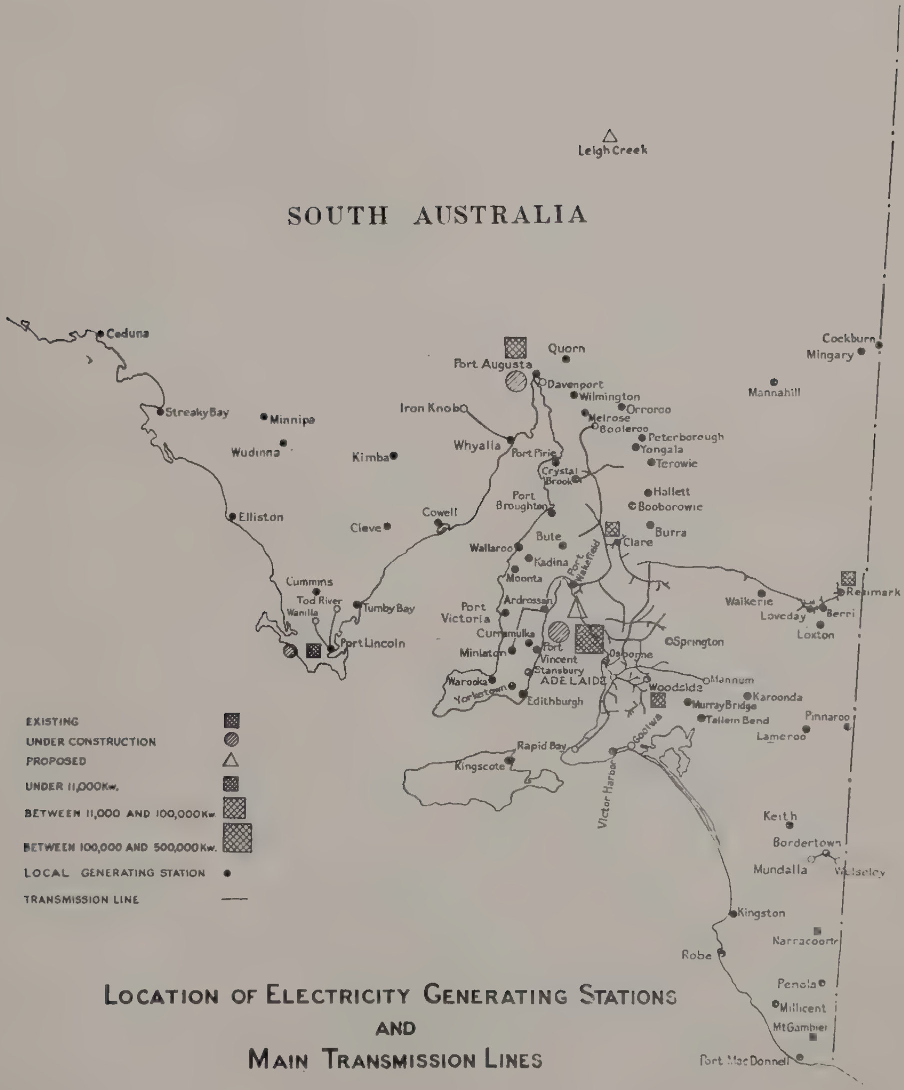
LOCATION OF ELECTRICITY GENERATING STATIONS AND MAIN TRANSMISSION LINES


ENLARGEMENT OF METROPOLITAN SUPPLY NETWORK
Newport
Brunswick
GENERATING STATION
TERMINAL STATION
TRANSMISSION LINE
EXISTING
UNDER CONSTRUCTION
PROPOSED
UNDER 11,000Kw
BETWEEN 11,000 AND 100,000Kw
BETWEEN 101,000 AND 500,000Kw
HYDRO STATION
THERMAL STATION
ISOLATED GENERATING STATION
TRANSMISSION LINE
STATE ELECTRICITY COMMISSION AREAS OF SUPPLY
Merbein
Red Cliffs
Ouyen
Manangatang
Underbool
Murrayville
Nyah
Woorinen
Swan Hill
Ultima
Sea Lake
Lake Boga
Woomelang
Berriwillock
Culgoa
Koondrook
Barham
Kerang
Hopetoun
Cohuna
Nullawil
Quambatook
Birchip
Wycheproof
Boort
Pyramid
Jeparit
Warracknabeal
Charlton
Mitiamo
Kaniva
Nhill
Donald
Serviceton
Dimboola
Wedderburn
Murtoa
Rupanyup
St Arnaud
Horsham
Natimuk
Goroke
Edenhope
Stawell
Cairn Curran
Castlemaine
Ararat
Beaufort
Ballarat
Casterton
Hamilton
Heywood
Portland
Warrnambool
Apollo Bay
Geelong
Bendigo
Heathcote
Kilmore
Rushworth
Kyabram
Shepparton
Benalla
Sugarloaf
Rubicon
Wodonga
Yallourn
Morwell
Maffra
Leongatha
Orbost
NORTH
EASTERN
MIDLAND
BALLARAT
SOUTH WESTERN
GEELONG
METROPOLITAN
MELBOURNE
EASTERN METROPOLITAN
GIPPSLAND
BENDIGO

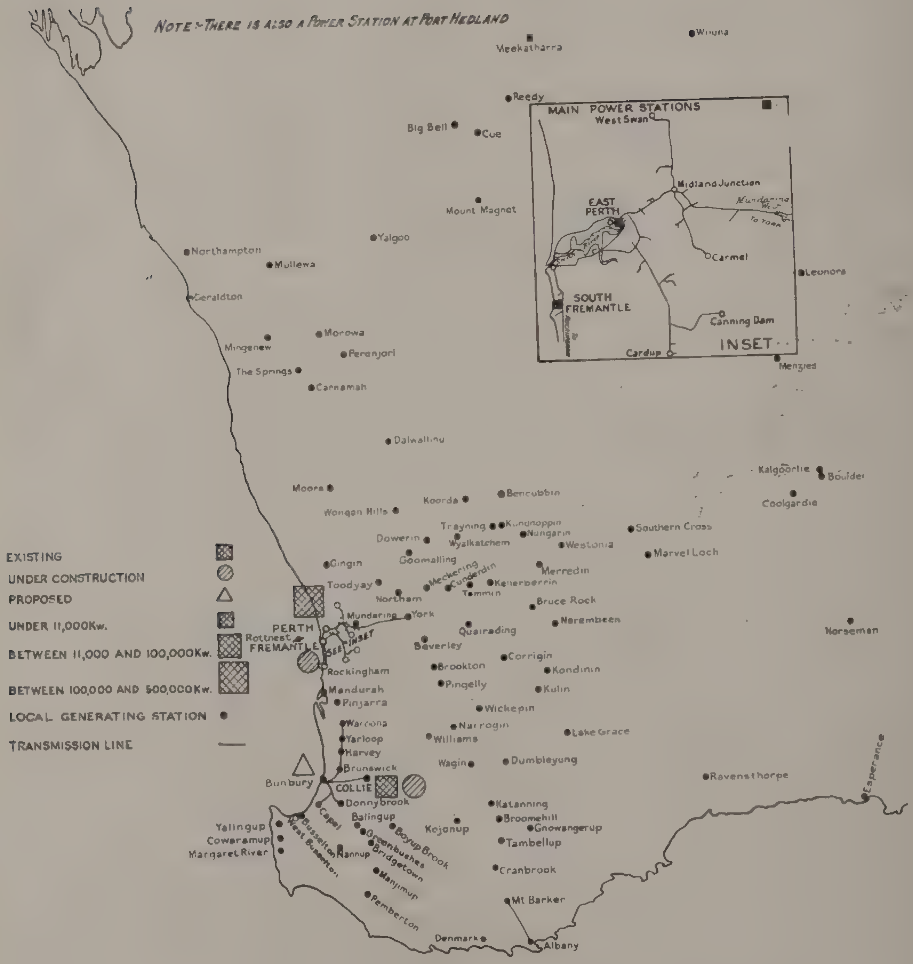
QUEENSLAND

LOCATION OF ELECTRICITY GENERATING STATIONS AND ELECTRICITY SUPPLY AREAS


KEY TO AREAS.
1. CAIRNS REGIONAL ELECTRICITY BOARD.
2. TOWNSVILLE REGIONAL ELECTRICITY BOARD.
3. MACKAY AREA.
4. CAPRICORNIA REGIONAL ELECTRICITY BOARD
5. WIDE BAY-BURNETT REGIONAL ELECTRICITY BOARD.
6. SOUTH EASTERN QUEENSLAND.
7. DARLING DOWNS.
8. WESTERN DOWNS
EXISTING
UNDER CONSTRUCTION
PROPOSED
UNDER 11,000Kw
BETWEEN 11,000 AND 100,000Kw
BETWEEN 101,000 AND 500,000Kw
HYDRO STATION
THERMAL STATION
ISOLATED GENERATING STATION
ELECTRICITY SUPPLY AREAS
Mossman
Cairns
1
Innisfail
Tully Falls
Ingham
Townsville
Home Hill
Charters Towers
2
Bowen
Burdekin
Proserpine
Collinsville
Mt Isa
Cloncurry
Hughenden
Mackay
Sarina
3
Winton
Clermont
Longreach
Ilfracombe
Barcaldine
Emerald
Yeppoon
Rockhampton
Mt Morgan
4
Gladstone
Blackall
Theodore
Monto
Bundaberg
Maryborough
Howard
Gayndah
5
Charleville
Mitchell
Roma
Miles
8
Murgon
Kingaroy
Dalby
6
Thargomindah
Cunnamulla
St George
Toowoomba
BRISBANE
Ipswich
7
Dirranbandi
Goondiwindi
Inglewood
Stanthorpe


SOUTH AUSTRALIA
Leigh Creek
Ceduna
Streaky Bay
Minnipa
Wudinna
Kimba
Elliston
Cleve
Cowell
Cummins
Tod River
Wanilla
Tumby Bay
Port Lincoln
Iron Knob
Whyalla
Port Augusta
Quorn
Davenport
Wilmington
Orroroo
Melrose
Booleroo
Peterborough
Yongala
Terowie
Port Pirie
Crystal Brook
Hallett
Booborowie
Port Broughton
Burra
Bute
Clare
Wallaroo
Kadina
Moonta
Port Wakefield
Ardrossan
Port Victoria
Curramulka
Minlaton
Port Vincent
Stansbury
Warooka
Yorketown
Edithburgh
ADELAIDE
Osborne
Springton
Mannum
Woodside
Murray Bridge
Karoonda
Tailem Bend
Pinnaroo
Lameroo
Rapid Bay
Kingscote
Victor Harbor
Goolwa
Cockburn
Mingary
Mannahill
Waikerie
Loveday
Renmark
Berri
Loxton
Keith
Bordertown
Mundalla
Wolseley
Kingston
Narracoorte
Robe
Penola
Millicent
Mt Gambier
Port MacDonnell
EXISTING ▨
UNDER CONSTRUCTION ▨
PROPOSED △
UNDER 11,000Kw. ▨
BETWEEN 11,000 AND 100,000Kw ▨
BETWEEN 100,000 AND 500,000Kw. ▨
LOCAL GENERATING STATION ●
TRANSMISSION LINE —

LOCATION OF ELECTRICITY GENERATING STATIONS
AND
MAIN TRANSMISSION LINES

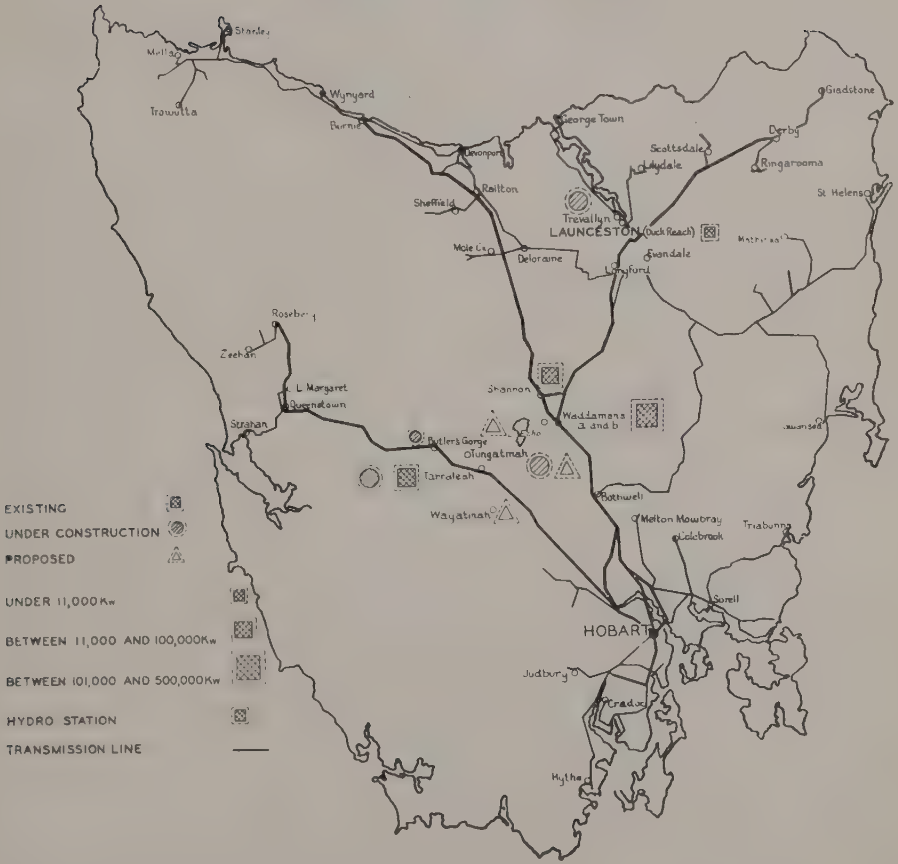

NOTE:- THERE IS ALSO A POWER STATION AT PORT HEDLAND
Wiluna
Meekatharra
Reedy
Big Bell
Cue
Mount Magnet
Yalgoo
Northampton
Mullewa
Geraldton
Mingenew
Morowa
Perenjori
The Springs
Carnamah
Dalwallinu
Leonora
Menzies
Kalgoorlie
Boulder
Coolgardie
Moora
Wongan Hills
Koorda
Bencubbin
Trayning
Kununoppin
Nungarin
Dowerin
Wyalkatchem
Westonia
Southern Cross
Marvel Loch
Goomalling
Gingin
Toodyay
Northam
Meckering
Cunderdin
Tammin
Kellerberrin
Merredin
Bruce Rock
Narembeen
Norseman
Mundaring
York
Quairading
Beverley
Brookton
Pingelly
Corrigin
Kondinin
Kulin
Wickepin
Narrogin
Williams
Lake Grace
Wagin
Dumbleyung
Ravensthorpe
Esperance
PERTH
Rottnest
FREMANTLE
SEE INSET
Rockingham
Mandurah
Pinjarra
Waroona
Yarloop
Harvey
Brunswick
Bunbury
COLLIE
Donnybrook
Capel
Balingup
Busselton
West Busselton
Yallingup
Cowaramup
Margaret River
Nannup
Greenbushes
Bridgetown
Boyup Brook
Kojonup
Manjimup
Pemberton
Katanning
Broomehill
Gnowangerup
Tambellup
Cranbrook
Mt Barker
Denmark
Albany
MAIN POWER STATIONS
West Swan
Midland Junction
Mundaring Weir
To York
EAST PERTH
Carmel
SOUTH FREMANTLE
Canning Dam
Cardup
INSET
EXISTING
UNDER CONSTRUCTION
PROPOSED
UNDER 11,000Kw.
BETWEEN 11,000 AND 100,000Kw.
BETWEEN 100,000 AND 500,000Kw.
LOCAL GENERATING STATION
TRANSMISSION LINE

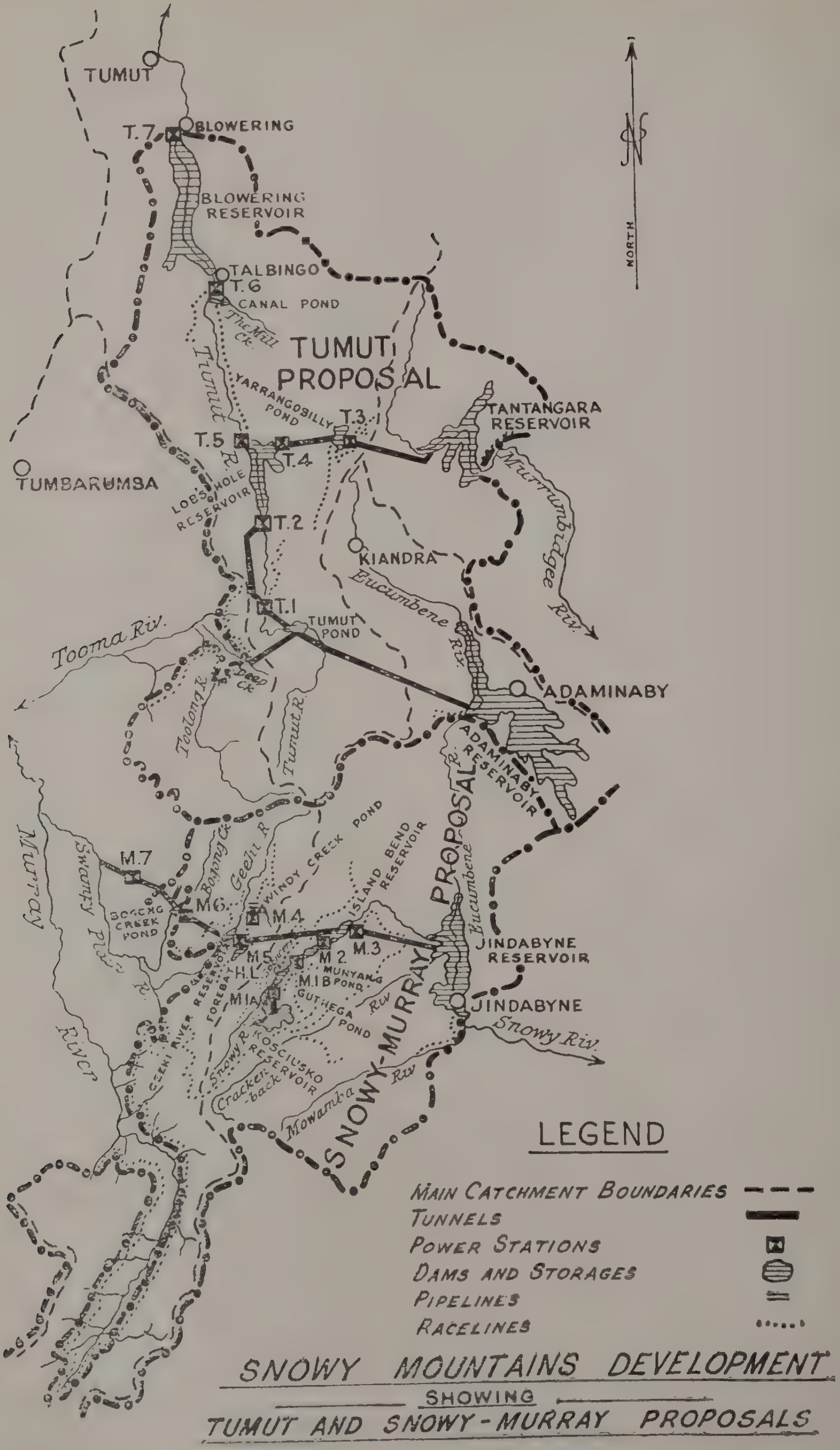
WESTERN AUSTRALIA

LOCATION OF ELECTRICITY GENERATING STATIONS AND MAIN TRANSMISSION LINES

TASMANIA

LOCATION OF ELECTRICITY GENERATING STATIONS
AND MAIN TRANSMISSION LINES


Stanley
Mella
Trowutta
Wynyard
Burnie
Devonport
George Town
Gladstone
Derby
Scottsdale
Lilydale
Ringarooma
St Helens
Railton
Sheffield
Trevallyn
LAUNCESTON
(Duck Reach)
Mole Ck
Deloraine
Evandale
Longford
Mathinna
Rosebery
Zeehan
L. Margaret
Queenstown
Strahan
Shannon
Waddamana a and b
Butlers Gorge
Tungatinah
Tarraleah
Wayatinah
Swansea
Bothwell
Melton Mowbray
Colebrook
Triabunna
Sorell
HOBART
Judbury
Cradoc
Hythe
EXISTING
UNDER CONSTRUCTION
PROPOSED
UNDER 11,000Kw
BETWEEN 11,000 AND 100,000Kw
BETWEEN 101,000 AND 500,000Kw
HYDRO STATION
TRANSMISSION LINE


TUMUT
T.7
BLOWERING
BLOWERING RESERVOIR
TALBINGO
T.6
CANAL POND
The Mill Ck.
Tumut R.
TUMUT PROPOSAL
YARRANGOBILLY POND
T.3
T.5
T.4
TANTANGARA RESERVOIR
Murrumbidgee Riv.
TUMBARUMBA
LOBS HOLE RESERVOIR
T.2
KIANDRA
Eucumbene Riv.
T.1
TUMUT POND
Tooma Riv.
Deep Ck.
Tooma R.
ADAMINABY
Tooloong R.
Tumut R.
ADAMINABY RESERVOIR
Murray
Swampy Plain R.
Bogong Ck.
Geehi R.
WINDY CREEK POND
ISLAND BEND RESERVOIR
PROPOSAL
Eucumbene
M.7
BOGONG CREEK POND
M.6
M.4
M.5
M.2
M.3
JINDABYNE RESERVOIR
H.L.
MUNYANG POND
M.1B
M.1A
GUTHEGA POND
JINDABYNE
Snowy Riv.
River
GEEHI RIVER RESERVOIR
FOREBAY
Snowy R.
KOSCIUSKO RESERVOIR
Cracken-back
Mowamba Riv.
SNOWY-MURRAY
N
NORTH
LEGEND
Main Catchment Boundaries
Tunnels
Power Stations
Dams and Storages
Pipelines
Racelines

SNOWY MOUNTAINS DEVELOPMENT
SHOWING
TUMUT AND SNOWY-MURRAY PROPOSALS

Supply to the South Western Branch is obtained through Geelong terminal station by a 66,000 volt transmission line extending through Colac to Warrnambool, where the new peak load power station to reinforce supply is due to begin operating during 1952.

Ballarat Branch obtains its supply from Ballarat power station and Ballarat terminal station, the latter being connected with the rest of the system by a 66,000-volt transmission line to Newport power station.

Both the Midland and Bendigo Branches obtain their supply through the 66,000-volt power line from Thomastown terminal station, one of the major metropolitan terminal stations in the system.

For the North Eastern Branch, supply is obtained through Rubicon "A" terminal station, Sugarloaf power station and the Kiewa hydro-electric undertaking, while local reinforcement of supply is provided by Shepparton power station. Inter-connexion with the rest of the system is provided by the 66,000-volt transmission line extending from Thomastown terminal station to Kiewa via Rubicon "A", Sugarloaf and Benalla, with branches to Shepparton and Kyabram, Yarrawonga and Mulwala (New South Wales), and via Wangaratta to Wodonga for supply to Albury.

The Commission also operates a diesel station at Hamilton of 2,757 kW., which is not at present part of the interconnected system.

(vi) *New Capacity.* Despite a very great increase in the production of electrical energy in Victoria between 1919 and 1951 (and 180 per cent. increase between 1939 and 1951), supply since the 1939–45 War has been inadequate to cater for the increase in demand. In recent years, particularly during the winter months, the Commission has found it necessary to impose restrictions on the use of certain electrical appliances and on commercial and industrial consumers. At times, "load shedding" has caused temporary cessation of supply. The main reasons for the deficiency of electric power are the effect of retarded constructional programmes during the war, fuel shortage at Newport power station, and an accelerated increase in demand since the war.

With a view to stabilizing the supply demand relationship, the Commission has electric-power projects under construction which, provided constructional programmes can be maintained, are expected to increase the installed capacity of the State generating system to approximately 1,300,000 kW. by 1957, inclusive of by-product electricity obtained from the power station to be constructed as part of the Commission's Morwell briquette project.

Major approved works include :—

(*a*) *Thermal stations.*

Yallourn extensions—200,000 kW.

Morwell—90,000 kW. for the new power station in conjunction with the Morwell briquette project. Of this, approximately 35,000 kW. of by-product electricity will be available to the State system in the first stage (on completion of the first and second factories). A further 35,000 kW. will be available in the second stage (on completion of the third and fourth factories), when an additional 60,000 kW. will be installed.

Metropolitan—153,000 kW. This includes a 30,000 kW. 25-cycle generator, due to be in full service with its two associated boilers during 1952, at Newport "A" power station. In addition to 153,000 kW. of generating plant, the system is being reinforced by the installation at Newport power station of a new 30,000 kW. frequency changer, also due for completion in 1952.

Geelong—30,000 kW. "packaged" units.

Ballarat—20,000 kW. ,, ,,

Shepparton—10,000 kW. Portion of this station is in service.
Warrnambool—10,000 kW. " " " "

(*b*) *Hydro stations.*
Kiewa—124,000 kW. (with further power stations projected at a later date).
Hume—25,000 kW. representing Victoria's share of a 50,000 kW. power station shared equally by Victoria and New South Wales.
Eildon Dam—135,000 kW.

(*c*) *Thermal regional stations.*
Mildura—10,000 kW. This will be a "packaged" power station.

A 220 kV. transmission line is under construction from the Kiewa project to Thomastown terminal station.

As portion of a plan to provide electricity to the major part of the Murray Valley area, the Commission will construct a 220 kV. transmission line from Kiewa to Mildura by way of Shepparton—a distance of approximately 350 miles. Regional stations at Shepparton and Mildura will function primarily as peak-load stations when the plan is implemented.

The Commission has submitted to the State Parliament its plan for the final phase of rural electrification of Victoria, extending supply to all populated regions of the State. The plan provides for the extension of State Electricity Commission supply to 178,000 additional country consumers, bringing electricity to every home in Victoria except for a residue of about 15,000 homes located in the most isolated parts of the State.

§ 3. Queensland.

1. **General Historical.**—(i) *Prior to establishment of State Electricity Commission.* The generation and distribution of electric power in Queensland had, until the last decade, tended to lag behind developments in this field in other States of Australia. The comparatively slow growth in the production and consumption of electricity can be attributed to some extent to the absence, prior to 1938, of a central statutory authority constituted to undertake the functions of co-ordinating, unifying and controlling the production and transmission of electric power. In addition, Queensland's vast area, coupled with a low population density, made large-scale rural electrification, elsewhere than in the south-eastern portion of the State which surrounds the major centres of industry and population, an uneconomic proposition. In 1936, there were 62 electrical undertakings in Queensland, of which 51 operated their own generating equipment and eleven purchased energy in bulk. Of the 62 undertakings, 41 were owned by local authorities and 21 by private organizations. No attempt had been made to interconnect any of the power stations then operating.

The early history of the industry in Queensland records that electricity was first used in the Government Printing Office, Brisbane, on 9th April, 1883, when some 50 incandescent lamps were put into service. These lamps were supplied with power from an 8.5 h.p. generator, coupled to the engine used for driving the printing machinery. The following year a local newspaper, the *Brisbane Courier*, had electric lighting installed in its composing room, and during the same year the Brisbane railway station was permanently lit with arc lamps. In 1886, transmission lines were constructed from the Government Printing Office along William-street to Parliament House.

In the following year a private firm, Barton and White, set up as electrical engineers, and not long after established a supply of electricity in Brisbane. A few years later the firm's assets were purchased by the City Electric Light Co. Ltd., which now supplies a large part of Brisbane's electric power requirements and a considerable rural area south-east of the city. By 1933 this organization was operating a modern power station at Bulimba, a suburb of Brisbane, with an installed generator capacity of 37,500 kW., from which it supplied more than 16,000 consumers and generated about 60 million kWh. of energy per annum. Capacity at Bulimba "A" is now 95,000 kW.; with this, 401 million units were generated in 1950, while the number of its consumers at 31st January, 1951 totalled 65,704.

The first country town in Queensland to receive supplies of electric power was Thargomindah, 730 miles west of Brisbane, in 1893—electricity being generated by utilizing the water flow from an artesian bore. This station operated until 1951, when reduced flow from the bore necessitated replacement of the hydro unit by diesel equipment. During 1905, the Toowoomba Electric Light and Power Co. Ltd. established supply in Toowoomba, and now supplies a considerable area including portion of the Darling Downs. Power is generated at the Company's diesel stations of 3,520 kW. supplemented with bulk supplies purchased from the City Electric Light Co. Ltd. In 1940 the company purchased the power undertakings at Warwick—a service inaugurated in that town during 1912 by the Electric Energy Supply Co. Ltd., and in 1946 the Killarney undertaking from the Killarney Electric Light Co., which established supply in 1931.

After the 1914–18 War, a number of suburban municipalities made plans to reticulate in their areas electricity purchased in bulk from the City Electric Light Co. Ltd. With a view to co-ordinating these developments, the Brisbane City Council established an electricity supply service. The first bulk supplies were provided in 1920 and supply was commenced to a number of other municipalities during the next three years. In 1923, all municipalities receiving bulk supplies were amalgamated under the Metropolitan Electricity Board to facilitate administration of the service. When the Greater Brisbane Council was constituted, the functions of the Board were vested in the Brisbane City Council Electricity Supply Department (now known as the Department of Electricity) which commenced operations on 1st October, 1925. By 1938, the Council was supplying an area of about 365 square miles, including the suburbs of Balmoral, Coorparoo, Enoggera, Hamilton, Ithaca, Kedron, Sandgate, Stephens, Sherwood, Taringa, Toombul, Toowong, Windsor and Wynnum—its consumers in the area numbered 56,928. Energy was purchased in bulk from a power station located at New Farm (administered by the Tramways and Power House Department) and from the City Electric Light Co. Ltd.

An electric tramway system, operated by the City Council, serves the City of Brisbane and a large part of the suburbs. The service was inaugurated during August, 1885, and, until 1897, the trams were drawn by horses. During 1896, however, interests in the service were acquired by the Brisbane Electric Tramway Co.—a private organization, with its head office in London. Conversion was commenced immediately and the first electric tram was placed in service during 1897. In that year track mileage totalled fifteen, compared with 106 in 1938, and 120 in 1950. Power is obtained from a station at New Farm and converted to direct current for traction purposes. The initial installation at New Farm comprised two generating units of 9,375 kW. each—the station's capacity now totals 75,000 kW.

On 31st December 1922, the tramway service was purchased by the Government, and the Brisbane Tramway Trust was set up to control and operate it. In November, 1925, after adoption of the Greater Brisbane Scheme which amalgamated all suburban and city municipalities of Brisbane, control of the tramways passed to the City Council. Growth of the Council's electrical undertaking and power production is indicated by the following comparisons between 1937–38 and 1950–51 figures, respectively :—Installed capacity, 56,250 kW. and 75,000 kW.; units purchased and generated, 71 million kWh. and 331 million kWh.; consumers, 57,000 and 93,000. In 1950–51 New Farm power house generated 328 million units and three million were purchased from City Electric Light Co. Ltd. The Department of Transport (Tramways) consumed 37 million units.

Prior to the establishment of the State Electricity Commission of Queensland in 1938, the generation and distribution of electric power was administered under the Electric Light and Power Acts 1896–1934, Local Authorities Acts 1902–1935, City of Brisbane Acts 1924–1936, and Electrical Workers Act 1927–1931. This legislation gave authority for the issue of Orders-in-Council to local governing bodies and private organizations for supplying electricity within specified areas and other associated matters. An amendment to the 1896 Act, promulgated in 1933, approved the reticulation of power to a small number of consumers by firms generating electricity for use primarily in their own factories. In 1936, there were eight such establishments in Queensland, as well as a large number generating power for their own use exclusively. Before establishment of the Regional Electricity Boards, no attempts had been made to unify or co-ordinate electricity supplies, and rural electrification, apart from reticulation within certain townships, was practically unknown. Further amendments effected during 1933 set up an Electricity Board to review tariffs and provided for the appointment of government electrical inspectors.

(ii) *Royal Commission on Generation and Distribution of Electric Power in Queensland, 1936.* On 5th December, 1935, the Queensland Government, being concerned with the need to develop the State's power resources in the public interest, appointed a Royal Commission to inquire into and make recommendations on matters relating to the generation and distribution of electric power in Queensland. The Royal Commission's terms of reference were wide and included inquiry into the general operation and effect of the legislation then in force relating to the electricity industry and whether amendments to this legislation or new provisions were necessary, desirability of centralized control, and the need for co-ordination of the generation and supply of electric power.

The Commission commenced its task on 10th March 1936, and throughout the inquiry tended to concentrate mainly on proposals for electrification of south-eastern Queensland and establishment of a suitable statutory authority to control and unify the development of electrical undertakings in the State. South-eastern Queensland, as designated in the Commission's Report, represented only 2.86 per cent. of the total area of Queensland, but contained more than 57 per cent. of the State's population. At 31st December, 1935 its area was 19,192 square miles with a population of 554,871 persons. In 1935, 152 million units were generated in Queensland, of which the south-eastern portion of the State contributed 122 million.

Investigations revealed that the lack of rural electrification was attributable mainly to two main associated factors, namely the absence of load centres of sufficient size to make the establishment of electrical undertakings economical and the inability of local authorities to finance the expenditure necessary for their establishment. It was found that rural extensions had been made chiefly in the south-eastern area and then only in isolated localities. Furthermore, some of these organizations were unable to show a profit unless they charged high tariffs, which made the extensive use of electricity economically unsound.

Two proposals were submitted to the Commission for electrification of the south-eastern area—one from the Brisbane City Council and another from the City Electric Light Co. Ltd. The former included compulsory acquisition by the Council of the City Electric Light Company's undertakings—a power which it was held existed under the City of Brisbane Act 1924. The Council, which desired sole rights to supply electricity within a radius of 100 miles of Brisbane, had evolved a plan whereby power would be supplied in bulk to four proposed Joint Boards appropriately situated in the area. The four Joint Boards were to be formed by contiguous cities, towns and shires for the purpose of initiating and controlling electricity supply in the Boards' areas. Energy would be supplied in bulk at 33,000 volts at appropriate points from main transmission lines owned and controlled by the Council.

The alternative proposal submitted by the City Electric Light Co. Ltd. provided for complete electrification of an area that it considered could be supplied economically and efficiently from Brisbane. The company's plan included the construction of main transmission lines southward to the Queensland—New South Wales border so that the two States' systems could be interconnected. The main transmission system within the area was designed to provide a number of interconnecting lines, giving duplicate supply to all main sub-stations at 66,000 volts. Under its scheme, the company would carry out complete reticulation, meter readings, collections of monies, etc., and supply power to the area at a price ten per cent. higher than its Brisbane tariff.

In the course of the investigations, the Commission indicated that, in its opinion, ultimate public ownership of electricity supply was desirable, and recommended that in order to achieve a properly planned scheme for the electrification of the south-eastern area, control of the generation and distribution of electric power be vested in the State—a commission, similar to the State Electricity Commission of Victoria, could give effect to the Government's policy on electric power.

Alternatively, the Royal Commission recommended that, if establishment of an operating Commission was not found practicable, electrification under public control with ultimate public ownership be implemented. This could best be effected by a controlling Commission capable of being converted at any time into an operating Commission. The alternative plan envisaged the negotiation of an agreement with the City Electric Light Co. Ltd., under which the Company would proceed with its project to electrify the south-eastern area of the State.

With regard to electricity supplies in areas of Queensland outside the south-eastern portion of the State, the Commission concluded that, with the exception of a section of the country from Townsville north to Mossman and west to Herberton, such electricity problems as existed were purely local ones of generation and distribution, not justifying further consideration at that time. It was suggested that the Barron Falls hydro-electric scheme, the potentialities of Tully Falls and the development of the Cairns area in general be the subject of immediate and detailed investigations.

2. **The State Electricity Commission of Queensland.**—In 1937, the State Government legislated to constitute a State Electricity Commission, which commenced to function during January, 1938—to it was passed administration of the Electric Light and Power Acts 1896-1938. The Commission's main powers were :—to secure a proper and efficient supply of electric power ; review tariffs ; grant licences to supply electricity ; secure the safety of the public ; and control and advise electrical undertakings generally. It was thus a controlling authority as distinct from an operating authority. In addition, the Commission was empowered to co-ordinate the industry's development throughout Queensland. Between 1938 and 1951, the number of private companies was reduced by absorption and acquisition from twenty-one to seven, and publicly owned undertakings, by amalgamation into Regional Authorities, from forty-seven to thirty.

By agreement with the Commission in 1939, the City Electric Light Co. Ltd. became co-ordinating authority for provision of electricity in an area of some 10,062 square miles, extending from the New South Wales—Queensland border to Gympie, north of Brisbane. The Company acquired the undertakings at Boonah, Beaudesert, Gympie, Coolangatta, Ipswich, Nambour, Southport, Redcliffe and the Somerset Dam supply and transmission line to Brisbane. Certain restrictions were placed on the Company's dividend rate, namely, limitation to the rate on Commonwealth bonds plus 2 per cent. During 1940, a similar agreement was made with the Toowoomba Electric Light and Power Co. Ltd. for the supply of electricity in the Toowoomba, Warwick, Killarney and Allora districts, subsequently being extended to cover a comprehensive area of 9,324 square miles, including Stanthorpe and other districts. Transmission line extensions since that year have made supply available to a number of adjacent districts on the Darling Downs. The Government has the right to acquire both these companies in 1954, or later.

Amending legislation, passed by the Queensland Parliament in March, 1948, changed the constitution of the State Electricity Commission from a body corporate to a corporation sole. On 1st July, 1948, a Commissioner for Electricity Supply was appointed in lieu of the previous Commission of four Commissioners. Since its inception in 1938, the Commission has made considerable progress in its task of developing the State's power resources and promoting a more widespread use of electric power. The degree of utilization of electrical energy in Queensland now compares favorably with other States in the Commonwealth.

3. **Regional Electricity Boards.**—With a view to facilitating the control and development of electricity supply in areas of low population density or those having a predominantly primary producing economy, the Government in 1945 passed the Regional Electric Authorities Act. This legislation, as later amended, provides for the creation of regions of electricity supply and constitution of Regional Electricity Boards. The Act provided for transfer to the Boards of local authority electricity undertakings in their regions, and for acquisition by the Boards of privately owned undertakings when purchasing rights fell due. Each Board comprises representatives of local authorities in the region and a representative of the Commission. Financial operations of the Boards are under the control of the Commission.

Soon after passage of the Regional Electric Authorities Act, four regions were defined and four Regional Boards constituted, namely, Wide Bay, Capricornia, Townsville and Cairns. A fifth Board, entitled South Burnett, became an operating authority in October, 1947, but on 1st July, 1951 was absorbed in the Wide Bay Regional Board and the organization is now known as the Wide Bay-Burnett Regional Electricity Board. As power was to be obtained from the Wide Bay Regional Board's station at Howard, the Commission decided that development of the two regions could be planned more effectively by a single authority. (Regional Boundaries and the location of generating stations throughout Queensland are shown on the map facing page 1174.)

Activities of the five Regional Boards in 1950–51, compared with operations of the stations located in regions in 1945–46, and totals for Queensland as a whole, are shown in the following table :—

QUEENSLAND : REGIONAL OPERATIONS.

Region.	1945–46.		1950–51.	
	Units Generated.	No. of Consumers.	Units Generated.	No. of Consumers.
	m.kWh.		m.kWh.	
South Burnett(*a*)	2.3	2,165	4.1	2,892
Wide Bay	11.4	9,302	23.6	13,959
Capricornia	19.5	11,196	36.5	15,175
Townsville	25.8	11,612	53.7	16,050
Cairns	22.7	9,722	47.6	13,631
Total	81.7	43,997	165.5	61,707
Queensland	487.0	194,429	(*b*) 972.0	(*b*)243,161

(*a*) *See* previous paragraph. (*b*) Year 1949–50.

Generator capacity installed at 31st December, 1951 of the four existing Regional Boards was :—Wide Bay-Burnett, 22,700 kW. ; Capricornia, 7,109 kW. ; Townsville, 15,332 kW. ; Cairns, 12,020 kW. ; total, 57,161 kW.

4. **New Capacity.**—(i) *Regions.* To provide for development of the electric power resources in the regions, the Commission formulated a ten-year programme divided into two five-year periods. In the first, it was planned to erect main transmission systems to connect existing power stations located within the regions and supplement generating capacity by the construction of new stations. Work on this section of the plan is proceeding. In the second period, the transmission system will be extended to more sparsely settled areas, the ultimate purpose being the provision of " ring " transmission lines throughout each region and interconnexion between the regions.

Work has commenced on a number of new generating stations, including Howard (Wide Bay Region), of which 15,000 kW. was placed in service during September, 1951, Rockhampton (Capricornia Region), and Townsville (Townsville Region). Each of these stations will have an ultimate capacity of 52,500 kW. and be steam-operated. In the Cairns Region, construction has commenced on the Tully Falls hydro-electric scheme, which is designed for an ultimate installed capacity of 92,400 kW. To augment existing capacity, pending operation of Tully Falls, the Cairns Regional Board has installed eleven diesel units with a total capacity of 7,860 kW. In addition, five 750 kW. sets are on order. It will be necessary, however, to obtain further plant, as it is anticipated that the demand will equal present plant facilities by the end of 1953.

At Mackay, where supply was first given in 1924, and Bowen, both situated on the coast between the Capricornia and Townsville Regions, the local Councils operate power stations of 5,000 kW. and 1,000 kW., respectively. The Mackay City Council is embarking on a scheme for rural development under an arrangement with the State Electricity Commission. To cater for the anticipated growth in demand, the capacity of its station will be increased to 10,000 kW. by 1954. At Bowen, the Town Council, which established the service in 1925, is extending the station's capacity by installation of one 1,000 kW. unit. During 1935, a small (3,800 kW.) power house—Australia's first underground hydro station—was placed in service at Barron Falls near Cairns. When the Cairns Regional Board was established during 1946, operation of the station passed to the Board's control and now comprises part of its generating plant, supplying an area of approximately 42,000 square miles.

(ii) *Western Queensland.* In Western Queensland, where a number of small isolated generating stations supply power to some of the larger towns, the Commission has evolved a plan to increase and modernize existing capacity. It involves installation of small internal combustion units ranging in size from 100 kW. to 600 kW. according to the load likely to be experienced, and conversion from direct to alternating current supply. The Government is assisting the scheme by subsidy—a feature of electrical development in Queensland. In general, the assistance provided comprises subsidies of up to one-third of capital cost on annual loan charges, with special subsidies of up to 50 per cent. for authorities in isolated areas.

In addition to improving supplies to the larger western towns, a scheme has been devised for electricity supplies for smaller towns in the western districts, where consumers range from 50 to 200. Subsidies of 65 and 60 per cent. will apply in those cases where the number of consumers supplied is less than 100 and 200, respectively. This plan is now being implemented, and in the first instance will provide the amenities of electricity to ten townships in the west of Queensland. The power will be supplied by small oil driven generating sets with automatic controls, which can be run with a minimum of operating attendance.

(iii) *South-eastern Queensland.* To increase the availability of electric power in the south-eastern area of the State, the two major generating authorities, in conjunction with the Commission, have power station projects under construction which are designed to place in service by 1956 new generating units totalling 203,200 kW. The City Electric Light Co. Ltd. is building a station known as Bulimba " B " on a site adjacent to Bulimba " A "—the initial installation comprises 60,000 kW. but the ultimate capacity may reach 180,000 kW. A 3,200 kW. unit at Somerset Dam near Brisbane is expected to be in service during 1952. At Tennyson in the Brisbane area, the City Council is constructing a new power station—initial capacity 60,000 kW. which may ultimately be increased to 180,000 kW. To supplement capacity pending operation of these projects, " packaged " generating units totalling 20,000 kW. have been ordered from overseas; of these 10,000 kW. will be installed at Tennyson and 10,000 kW. at Ipswich. In addition to catering for the anticipated increase in demand from industrial and domestic sources, this new capacity will be called on to supply energy for the electrified suburban railways—a project upon which preliminary work has commenced.

(iv) *The Burdekin River Hydro-electric Project.* In the vicinity of Townsville, the Commission, acting on behalf of the Burdekin River Authority, is continuing investigations of the proposed hydro-electric development of the Burdekin River. This project is linked with the plan to conserve the waters of the River for irrigation, and surveys undertaken indicate that approximately 80,000 kW. could be generated. It has been estimated that a station approaching this size should meet the requirements of Townsville and the adjacent areas, including the coal mines in the region of Collinsville, for at least 20 years, and by obviating the continuous operation of thermal plant, achieve significant savings in fuel. In addition, construction of this hydro station will obviate the need to install new thermal capacity at Townsville within a relatively short time.

§ 4. South Australia.

1. **General Historical.**—In 1895, the South Australian Electric Light and Motive Power Co. Ltd., with nominal capital of £20,000, was formed under the South Australian Companies Act with the object of supplying electricity for public and private purposes. A private Act, passed in 1897, conferred certain powers which enabled the company to generate and transmit electric power for sale.

Just prior to the close of the 19th century, the Electric Lighting and Traction Co. of Australia Ltd., a company registered in London, acquired the assets of the South Australian Electric Light and Motive Power Co. Ltd. These included a small power station at Port Adelaide of 150 kW. capacity, as well as the franchise of that company to supply power in Port Adelaide and the City of Adelaide. A station of 400 kW. capacity was built which supplied direct current to the City of Adelaide; by 1917, this had an installed capacity of 12,000 kW.

In 1905, the Adelaide Electric Supply Co. Ltd., incorporated in Great Britain with a paid-up capital of £180,000, took over the South Australian section of the Electric Lighting and Traction Co. of Australia Ltd., including the franchise under the 1897 Act. Certain limitations had been imposed under that legislation in respect of the area within which electricity might be supplied. However, in 1922, shortly after the management of the company had been transferred from England to South Australia, a further private Act was passed which amended the 1897 Act and, subject to certain provisions, gave the company authority to operate in any part of the State.

Although the Act of 1922 conferred additional powers on the Company, it nevertheless maintained a principle laid down in the 1897 legislation, namely, that the Company could not extend its area of supply to a district without the sanction of a resolution of the ratepayers. This provision did not, however, prevent the Company from taking its instrument of supply into and through intermediate districts.

The Adelaide Electric Supply Co. Ltd. gradually expanded its activities, and in August, 1923 a new station of 20,000 kW., in three units, was commissioned at Osborne on the Port River. By 1937 this station had a capacity of 55,000 kW. and the company was supplying an area of about 3,500 square miles. Its distribution system included three 33 kV. double circuit overhead transmission lines from the Osborne power house to the Croydon and Richmond substations, and a 33 kV. ring about 20 miles in length linking these two substations to the three main suburban substations. These in turn were linked to the four main city substations by an inner 33 kV. ring.

A measure of State control over matters relating to the service provided to consumers of electric power was envisaged by the 1897 legislation. Under Section 27, power existed to make regulations for securing a regular and sufficient supply of electricity and fixing a maximum price to be charged. Section 26 provided that any local authority within whose municipality the company was operating might lawfully purchase, after the expiration of specified periods from the passing of the Act, all or portion of the company's assets located in the area under the local authority's control.

However, no regulations were made under Section 27, and no Council attempted to exercise its right of purchase under Section 26. Provision is made in Part XXIV., Division II., of the Local Government Act 1934–1941, giving local authorities autonomy to generate and supply electricity within their areas, and a number of councils have availed themselves of this power.

Prior to 1932, no attempts had apparently been made to exercise any of the powers available to control the company, or to institute any inquiry regarding it. In that year, however, a Committee was appointed to inquire into and report upon certain activities of the company, namely:—

1. The charges made for the supply of electricity to consumers, including minimum charges;
2. The payments for the rent of meters registering the amount of electricity used by consumers;
3. The payments of any deposits before installation of electrical apparatus.

The Committee's report of 16th July, 1932 indicated that in their opinion the organization was efficiently managed and conducted with due regard to its obligations to deal fairly and equitably with the public, and that it provided the standard of service to which the latter was entitled. No further action was taken until 1935, when the Government instituted inquiries into the capitalization of a sum, representing nearly the whole of an amount paid in premiums on the issue of ordinary shares in 1912, 1913, 1915 and 1921, and also the rate of dividends being paid to holders of ordinary shares in the Company.

It was evident that the Government was becoming concerned with the need to provide an adequate supply of electricity at reasonable rates to the public, particularly with a view to encouraging the development of industry. In March, 1943, a Committee was appointed to investigate the following questions :—

1. The desirability of establishing a power station at Port Augusta or elsewhere outside the metropolitan area for the generation and transmission of electricity to the metropolitan area and country districts.
2. What additional sets, if any, should be installed at Osborne " B " power station, in addition to the 30,000 kW. set then under construction. (At this time the Company's programme for increasing capacity included two 30,000 kW. turbo-alternators and three 15,000 kW. boilers.)
3. What measures might be taken to meet the necessity for an immediate increased electricity supply in the metropolitan area.

Following upon this inquiry, the Electricity Act 1943 was passed which, *inter alia*, established the South Australian Electricity Commission. However, until the State assumed full responsibility for the supply of electric power, this body was not able to do much more than exercise the formal functions conferred on it by the Act.

Under the provisions of Section 3 of the Adelaide Electric Supply Company Act 1944, a Royal Commission was appointed to inquire into and report upon the supply of electricity by the Company and upon all matters concerning it. The Commission presented its report on 28th August, 1945, which included alternative recommendations, the main substance of which was subject to certain considerations and assumptions, that

(*a*) the Government acquire the assets and liabilities of the Adelaide Electric Supply Co. Ltd., and the responsibility for the generation and transmission of electric power in South Australia be vested in a public authority to be called the South Australian Electricity Trust,

or, if acquisition was not considered desirable,

(*b*) prices charged for the supply of electricity by the Company be fixed by regulation and determined from time to time by a Committee appointed by the Governor in Council, giving due regard to the interests of the public and a fair return to the shareholders of the Company.

The Commission also recommended that an inquiry be held forthwith by the South Australian Electricity Commission regarding the co-ordination of electricity supplies in the State, and that the Commission have power to veto any proposals for the construction of works to generate and transmit electric power.

2. **The Electricity Trust of South Australia.**—Early in 1946, a Bill was passed transferring the assets of the Adelaide Electric Supply Co. Ltd. to the newly formed Electricity Trust of South Australia, which became responsible for unification and co-ordination of the major portion of the State's electricity supplies. This legislation provided that the Trust should take over the powers vested in the South Australian Electricity Commission under the 1943 Act, which, after establishment of the Trust, would cease to exist. In addition to the powers specified in the Adelaide Electric Supply Company's Acts 1897–1931, the Trust may, *inter alia*, supply electricity direct to consumers within a district or municipality with the approval of the local authority, and by agreement with other persons who generate or supply electricity, arrange to interconnect the mains of the Trust with those of other persons, and give or receive supplies of electricity in bulk.

3. **The Municipal Tramways Trust.**—In addition to the instrumentalities mentioned above which are engaged in the generation and distribution of electric power in South Australia, the Municipal Tramways Trust operates a power station of 27,500 kW. at Port Adelaide, which supplies energy for traction purposes. This organization was formed in February, 1907 and acquired the assets of the horse tramway companies then operating. An electric service was commenced in March, 1909. The system was gradually extended, and in 1929 the Trust purchased the South and North Terrace railway lines, which connected Adelaide and Glenelg, from the South Australian Railways Commissioner. By December, 1929, the Trust had completed the electrification of the South Terrace section and opened it for traffic. Trolley buses were introduced during 1938, providing a service between Tusmore and Largs—a distance of approximately 15 miles. In 1946 the Trust's route mileages were :—tramway, 80 ; trolley bus, 16. It also operates a number of motor buses. In 1946 the service consumed approximately 28 million kWh. of electricity.

4. **Capacity and Production.**—(i) *Categories.* There are three main categories of organizations generating electric power in South Australia, namely :—

(*a*) Governmental, which include the Electricity Trust ; (*b*) Local Authorities, e.g. municipal and district councils, Renmark Irrigation Trust, Municipal Tramways Trust ; (*c*) Other, including :—(i) Individuals and firms primarily engaged in generating power for sale ; (ii) Firms generating power primarily for their own use but supplying outside consumers ; (iii) Firms generating power for their own use.

(ii) *Installed Capacity.* In 1949–50 total installed capacity in South Australia was 206,743 kW. compared with 120,081 kW. in 1939–40. Units generated totalled 594 and 270 million kWh. in 1949–50 and 1939–40, respectively.

Of the total installed capacity, the Electricity Trust of South Australia operates plant with a capacity of 145,000 kW. It is thus the most important single authority supplying electricity in the State. There are approximately 169,000 consumers of electricity, of whom about 145,000 are supplied by the Trust. Its major steam stations are Osborne "A" (79,000 kW.) and Osborne "B" (60,000 kW.), while the balance of the capacity controlled consists of a number of small internal combustion plants located in rural districts.

No hydro-electric potential exists in South Australia. Steam generating units comprise 92 per cent. of installed capacity and the balance, 8 per cent., is internal combustion equipment. Until recently, all fuel consumed in the thermal stations was obtained from sources outside the State, and at times power restrictions were necessary owing to the inadequacy of supplies.

5. **Leigh Creek and other new Capacity.**—With a view to achieving independence from external sources, steps are being taken to install boilers designed to burn locally mined fuel. Fairly extensive deposits of low-grade sub-bituminous coal are obtainable at Leigh Creek, about 370 miles north of Adelaide. Under the Electricity Trust of South Australia Act Amendment Act 1946, the Trust was given authority to develop Leigh Creek coal for use in its own undertakings and to sell or otherwise dispose of any surplus production.

In order to cope with the rapidly increasing demand for power, the Electricity Trust is installing four additional 30,000 kW. units at Osborne "B", one of which is planned to be in service by June, 1952. Ultimate capacity of this station will be 180,000 kW. Another major work under construction is the regional power station at Port Augusta, where three 30,000 kW. units will be installed, one each by 1954, 1955 and 1956. One of the principal reasons for locating the station at Port Augusta is its proximity to the Leigh Creek coal, thus eliminating a considerable part of the long and costly haul to Adelaide. A new standard gauge line is to connect Leigh Creek with Port Augusta. A system of power transmission lines is to interconnect the metropolitan stations with Port Augusta by way of Port Pirie; supply to country areas will also be facilitated or increased. The Trust recently purchased a small power station at Port Lincoln from the Government Produce Department for reconstruction at a new site, and with an ultimate capacity of 3,000 kW. Extensions are planned to the existing steam station at Leigh Creek, which include the installation of two steam units each of 1,500 kW. The locations of generating stations and main transmission lines in South Australia are shown on the map on page 1175.

Present works are expected to increase installed capacity by 154,000 kW. by 1956, providing a total installed capacity of approximately 361,000 kW. From 1952 to 1956, it is expected that at least one 30,000 kW. unit will be installed each year. These increases should more than cater for the increase in demand up to 1956, but further additions to plant will be necessary before 1960 to maintain reserves and provide replacements for retired equipment.

§ 5. Western Australia.

1. **General Historical.**—The pattern of the generation and distribution of electric power in Western Australia consisted until recently of a number of isolated systems each supplying a particular area. Excepting in the metropolitan area and in the area embraced by the South West Power Scheme, where in both cases electricity supply is in the hands of the State Electricity Commission of Western Australia, local authorities are generally responsible for the supply of electricity for domestic, industrial and traction purposes. In order to cater for the expected growth in demand, capacity of the State's major generating stations is being increased and plans have been formulated for the interconnexion of the Perth-Fremantle system with the south-western area. In 1945, the State Electricity Commission was set up with the object of co-ordinating the supply of electricity throughout the State.

The first supplies of electric power in Perth were reticulated to consumers by a private organization—the Perth Gas Company Ltd.—in 1894. This firm continued to supply until 1912, when its undertakings were purchased by the Perth City Council. At that time, responsibility for the generation of electric power was assumed by a Governmental authority administered by the Commissioner for Railways, namely the Western Australian Government Electricity Supply, distribution remaining mainly in the hands of the Perth City Council. Pursuant to the Electric Light and Power Agreement Act 1913, the Government Electricity Supply contracted with the Perth City Council to supply the Council's power requirements in bulk at a price not exceeding 0.75d. per unit for a period of 50 years. However, in 1948, fifteen years before expiration of the agreement, the State Electricity Commission purchased the Council's electricity and gas undertakings, thus releasing it from the contract. Under a similar agreement the Government organization also sells bulk supplies of power for traction and other purposes to the Fremantle Municipal Tramways and Electric Lighting Board, which reticulates power to industrial and domestic consumers in Fremantle and East Fremantle municipalities, and Melville and Rockingham Road Board districts.

2. **Perth.**—Under the Government Electric Works Act 1914, the Western Australian Government Electricity Supply was given power to construct works for the supply of electricity in the metropolitan area. By 1916, the authority had established a generating station at East Perth with an installed capacity of 12,500 kW. As the demand for electric power became more widespread, both the generation and distribution facilities were increased. In 1930, installed capacity stood at 32,000 kW. and the distribution system extended for a radius of 24 miles from the stations; altogether, 105 miles of high tension lines were in use, including 92 miles of 20,000 volt and the balance 6,000 volt. Capacity was further increased in December, 1938, when a 25,000 kW. unit was placed in service. At the same time, three new boilers were installed which were designed to use pulverized Collie coal. In 1946, control of this station was passed to the State Electricity Commission.

Statistics relating to activities at the East Perth undertaking are shown in the following comparative table :—

WESTERN AUSTRALIA : EAST PERTH UNDERTAKING.

Particulars.		1928–29.	1938–39.	1949–50.
Plant capacity	kW.	32,000	57,000	53,000
Maximum load	kW.	21,500	33,000	52,500
Units generated	m.kWh.	80	137	237
Units used on works	,,	5	13	20
Units sold	,,	69	117	192
Coal used per unit generated	lb.	3.1	2.77	2.55
Coal used—				
Collie small	tons	110,460	165,355	267,448
Imported	,,	427	3,367	..

3. **Kalgoorlie.**—In Kalgoorlie, on the goldfields, electricity supply was first established by the Municipal Council in 1895. By 1945, this authority was supplying 3,350 consumers with direct current from a diesel station of 1,350 kW. generating capacity. In 1902, the Kalgoorlie Electric Power and Lighting Corporation commenced operations with the primary objectives of supplying power for the gold mines and for traction. This organization operates a steam station of 18,750 kW. and maintains a 22 kV. line of 21 miles to the Celebration mine. Alternating current is also supplied to about 1,000 consumers, and bulk supplies are provided to the Kalgoorlie Electric Tramways Limited. The Corporation's undertaking generates approximately 45 million kWh. per annum and consumes about 100,000 tons of wood fuel.

4. **General Pattern of Electricity Supply.**—The pattern of electricity supply in rural areas of Western Australia has hitherto consisted of a large number of small organizations, both private and local government, generating power for sale to consumers in a particular town or municipality, but in the area between the Great Southern Railway from Northam to Albany and the west coast, the State Electricity Commission is now constructing transmission lines to give central station supply to the towns and their surrounding rural areas. In addition, there are several mining companies which generate electricity for use in their mines.

The main load centre is, of course, the Perth-Fremantle area into which is concentrated the major portion of the State's population and industry. In 1949, the East Perth power station generated 39 per cent. of the electricity produced in the State from all sources, excluding those firms which generate power for their own use. No interconnections between the various power stations established in rural localities and those in the metropolitan area have yet been effected.

Some statistics relative to the generation and supply of electric power in Western Australia are provided by the following comparisons between 1939–40 and 1949–50, respectively :—total installed capacity, 111,641 kW. and 119,396 kW. ; units generated, 337 million kWh. and 417 million kWh. ; consumers, 95,000 and 109,000.

The location of power stations and distribution systems, including projects under construction or proposed, are shown on the map on page 1176.

5. **The State Electricity Commission of Western Australia.**—(i) *Origin and Aims.* In order to ensure an organized and co-ordinated future growth of electricity generation and distribution throughout the State, the Government introduced a Bill in 1945 to establish the State Electricity Commission, which, together with an Electricity Bill, became law early in 1946. Under these Acts, the Commission was given power, *inter alia*, to secure the ultimate co-ordination of all State or other electrical undertakings in the State, to construct and operate power stations and transmission lines and purchase as a going concern and carry on the undertaking of any supply authority.

Under the Electricity Act, which should be read in conjunction with, and is subject to, the State Electricity Commission Act, no person or organization is permitted to construct or extend an electricity supply undertaking without consent from the Commission. Local authorities are empowered to operate and construct power stations and other works associated with the supply of electricity, provided that authority is first obtained from the Commission and any proposals are not inconsistent with the Commission's plans.

(ii) *New Projects.* Since its inception in 1946, the Commission has proceeded with the task of increasing generating capacity in an endeavour to cater for a greatly increased demand for power. Long-range plans have been formulated to interconnect the south-western portion of the State with the Perth-Fremantle system. One of its most important and immediate problems was to increase the capacity of the generating equipment serving Perth and Fremantle. During the 1939-45 War years, it became evident that growth of demand for electric power would necessitate provision of additional generating equipment in the metropolitan area as soon as possible. Accordingly, the Government Electricity Supply authority commenced design work for a new station of 50,000 kW. capacity. Contracts were let in 1945 and construction commenced on a site selected at South Fremantle, on the coast south of Fremantle proper. Responsibility for completion of this project was given to the Commission under the Act of 1946. As it was considered that an even larger station would be required, provision was made for the installation of two additional units giving an ultimate capacity of 100,000 kW. Steam is furnished by eight boilers designed to use pulverized coal from Collie, which is located about 120 miles from the station. By 1951, two units had been placed in service and the output was being fed into the metropolitan system. The Commission plans to have all units in operation during 1952 and 1953.

Most of the plant at the East Perth power station, which passed to the Commission's control in 1946, is due for retirement or requires extensive overhaul. During and since the War, the demand for power has necessitated its almost continuous operation, all maintenance work being undertaken during week-ends or holidays. At times, when the load has become too great or break-downs have occurred, it has been necessary to "black out" certain districts or reduce the load by other means. In addition, certain restrictions were imposed on consumers between 1946 and 1950, but were lifted when the new station came into service just prior to the winter of 1951. In an endeavour to improve the position pending operation of the South Fremantle station, three diesel units, each of 1,000 kW., were installed in 1950. The Commission now plans to install a 30,000 kW. unit at East Perth, and tenders have been called for supply of the turbo-alternator, boiler plant and ancillary equipment.

6. **Frequency Conversion.**—The earliest sets installed at East Perth were designed for operation at 40 cycles and this frequency was adhered to throughout the growth of the plant on this site, until the 1938 additions brought total capacity at this frequency to 57,000 kW. During 1947 the station's size was reduced by 4,000 kW.

As a result of a separate inquiry conducted at the same time as the early investigations into the proposed new station at South Fremantle, a recommendation was made favouring conversion of the system to the British and Australian Standard frequency of 50 cycles per second. The recommendation was adopted and implemented by making the frequency of generation at South Fremantle 50 cycles and installing at East Perth a frequency changer able to convert 25,000 kW. of energy from one frequency to the other. Change-over of consumers' plant is proceeding and a large number of important loads are now supplied at 50 cycles.

7. **South-west Development.** Under the Electricity Act of 1937, which was superseded by the 1946 Acts, a Committee was appointed to inquire into and report upon a proposed scheme for the electrification of the south-western portion of the State. The Committee commenced its activities in 1939, but owing to the conditions prevailing at that time no action was taken to implement any of its recommendations. On 30th

August, 1943, the Electricity Advisory Committee was requested by the Government to report on the question of establishing a central power station in the south-west, taking into consideration current policy regarding decentralization of industry, and also the increased development which might reasonably be anticipated in the south-west after the War.

The Committee submitted its report in 1945, recommending, amongst other things, that a National Power Scheme for the south-west be proceeded with. The plan provided for acquisition of the existing Collie power station and installation of additional generating capacity, construction of a power station at Bunbury and interconnexion of the south-west scheme with the metropolitan system. On 12th October, 1946, the State Electricity Commission acquired the Collie power station, which prior to 1946 was owned and operated by the Collie Power Company Limited. At the date of acquisition, the station's installed capacity was 5,000 kW., comprising two steam units. The capacity of the station will be increased to 12,500 kW. by the end of 1952.

Since 1950, the Commission has acquired a number of electrical undertakings from municipal bodies and private organizations in the south-west area and is proceeding with arrangements for the purchase of others. In August, 1951, the first portion of the South-West Power Scheme was officially opened at Collie. When completed, a system of power lines will reticulate electricity over an area of approximately 1,800 square miles. Tenders have been called for the first two 30,000 kW. units for a new power station at Bunbury, which will be interconnected by transmission lines to the Collie and South Fremantle stations, permitting an interchange of power between the metropolitan and south-west systems.

§ 6. Tasmania.

1. **Hydro-electric Potential.**—With its mountainous terrain and relatively high rainfall, Tasmania is well endowed with hydro-electrical resources. It has been estimated that its lakes and rivers possess a potential which, with appropriate conservation measures, would permit the installation of generating equipment totalling at least 1,750,000 kW. Present installed capacity is only a fraction of this amount, namely, about 218,000 kW.

The major portion of Tasmania's hydro potential is situated on the Central Plateau, covering an area of about 1,500 square miles at an altitude varying from 2,000 to 4,000 feet. Annual rainfall ranges from 80 inches in the western section to 30 inches in the east. Natural storages are provided by a number of lakes and marshes, the largest of which is the Great Lake, covering an area of 58 square miles with a present capacity of 1,150,000 acre feet. Numerous rivers, having their source on the Central Plateau, flow into the sea at intervals around the coast, but by far the greatest proportion of the run-off is carried southwards by the Derwent River and its tributaries. This river system is thus the most important source of hydro-electric power on the island.

In addition to the rivers having their source on the Central Plateau catchment, there are two other major potential areas of hydro-electric power, namely, those of the Esk River in the north near Launceston and the Huon in the south near Hobart. Both these areas are important in that relatively large stations could be operated at low cost in close proximity to large load centres. A station of approximately 80,000 kW. which will utilize the waters of the South Esk is at present under construction near Launceston.

2. **Historical.**—Development of the island's hydro-electric potential was first commenced in 1892, when the Launceston City Council constructed a small station of 450 kW. at Duck Reach on the South Esk River. Power was made available in 1895. This station, which is still operating and was acquired by the Hydro-Electric Commission in 1944, now has an installed capacity of 2,000 kW. Although this was the first hydro-electric station, a steam station operated by a private concern supplied some power to Hobart in 1893.

With a view to obtaining cheap supplies of electric power, the Mount Lyell Mining and Railway Co. in 1911 decided to develop the potential of Lake Margaret near the western coast; the Lake's catchment has an area of 8 square miles with an annual rainfall of 147 inches. By 1914, the Company was generating about 8,400 kW., later increased by the installation of another unit. In 1951 the station had an installed capacity of 9,900 kW. Originally it was arranged that any power not required for the Company's activities should be fed into the Tasmanian system. However, in recent years the amount generated has been insufficient, necessitating purchase of additional supplies from the Hydro-Electric Commission. In 1911 also, another private firm obtained authority to generate electricity. This organization, the Hydro-Electric Power and Metallurgical Company, was formed to exploit the potential of the Great Lake, where it was intended to develop 7,000 kW. for the electrolytic treatment of complex ores. However, the Company experienced considerable difficulty in raising capital, and in 1914 the Government, being concerned about the progress of the scheme, took over that part of the Company responsible for the development of the power project.

As a result of this move, the Hydro-Electric Department of Tasmania was set up and immediate action taken to develop the Great Lake scheme. By May, 1916, two 3,500 kW. units had been installed at a station named Waddamana. The power produced was utilized for domestic lighting and tramway traction in Hobart and also for the treatment of ores. In 1919 the Department accepted a contract to supply 23,000 kW. of power to the Electrolytic Zinc Co. of Australasia Ltd., which necessitated the enlargement of the Great Lake scheme. It was decided at this time that the constructional programme should be designed to cater for the anticipated future load-growth, and by 1922 the Great Lake–Waddamana project had an installed capacity of 49,000 kW. Works associated with the project required construction of a multiple arch dam at Miena, where the natural flow from the southern end of the Lake forms the River Shannon. Additional catchment area has been obtained by diverting water from the Ouse River to the Lake. Transmission lines of 88 kV. capacity run northward to Burnie and the north-east coast, and southwards to Hobart.

Before the waters which drive the generators at Waddamana pass through that station, they are first used to generate power in the Shannon project. This scheme utilizes the controlled flow of water between Miena Dam and the Waddamana Canal. Construction of an earthen dam to divert water from the Shannon River into a canal, before falling through steel pipe-lines to the power station 258 feet below, was commenced in the late 1920's and by 1934 the Shannon station had an installed capacity of 10,500 kW.

In 1929, the Government passed the Hydro-Electric Commission Act, under which was established the Hydro-Electric Commission. In 1930 this corporate body took over the State hydro-electric undertakings and the business of the Hydro-Electric Department.

3. **The Hydro-Electric Commission.**—(i) *Extent of Operations.* After the economic depression of the early 1930's, industrial activity, particularly in those industries requiring large blocks of electric power, increased rapidly. It became evident to the Commission that this demand for power, together with the increasing domestic demand, would soon reach a stage when it could only be satisfied by the installation of additional generating capacity. Accordingly, towards the end of 1934, the Tarraleah project was commenced and by 1938 three 15,000 kW. units had been installed. Since then three more units have been placed in service, giving the station a total installed capacity of 94,500 kW. The Tarraleah scheme involved construction of a power station on the Nive River near its junction with the Derwent, conservation of waters in the River Derwent at Lake St. Clair and Butler's Gorge and their diversion by flume and pipeline to the power station. Power is generated at 11,000 volts and stepped up to 110,000 volts for transmission to Rosebery on the west coast and to Hobart.

With a view to ensuring that peak loads could be met, the Commission, during the 1939–1945 War, commenced construction of a new station known as Waddamana "B". An ideal source of peak load power exists in the Great Lake storage, which has a capacity of 1,150,000 acre feet at an altitude of 3,380 feet. The project, with a total installed capacity of 50,000 kW. comprising four units, was completed in 1949. Sufficient water to operate the station is provided by a canal similar to the one supplying Waddamana "A". Power is generated at 11,000 volts and transmitted by 110,000-volt lines to Boyer substation near Hobart.

Since the first year of operation, namely 1916, when Waddamana "A" was placed in service, output of the Hydro-Electric Commission's system grew from about four million kWh. to a total of 920 million kWh. in 1949. Between 1939 and 1949 the number of consumers of electric power in Tasmania increased by 20,924 to 70,924. During the same period the peak load on the system rose from about 70,000 kW. in 1939 to 171,940 kW. in 1949. The Commission's total installed generating capacity was 172,500 kW. at 30th June, 1949, which, when compared with the 1949 peak load of 171,940 kW., indicates that very little reserve capacity was available. A number of factors contributing to an increase in demand, combined with a series of rainfalls below average, have in recent years necessitated the imposition of power rationing. These restrictions on the use of electricity are expected to continue until 1953.

The following comparative statistical material indicates the growth of the Hydro-Electric Commission's system between 1938 and 1949:—

TASMANIA: HYDRO-ELECTRIC COMMISSION SYSTEM.

Power Station.	1938.			1949.		
	Installed Capacity.	Units. Generated.	Peak Loads.	Installed Capacity.	Units Generated.	Peak Loads.
	kW.	m.kWh.	kW.	kW.	m.kWh.	kW.
Waddamana "A" ..	47,200	376	51,000	49,000	242	52,000
Waddamana "B" ..	..	..	..	36,000	140	40,000
Shannon	10,200	84	10,000	10,500	72	9,600
Tarraleah	(a) 47,250	(a) 15	(a) 10,700	75,000	463	73,700
Duck Reach ..	(b)	(b)	(b)	2,000	3	1,620
Devonport (Steam) ..	750	.013	(c)	(d)	(d)	(d)
Total ..	105,400	475.013	..	172,500	920	..
System ..	67,100 kW.			171,940 kW.		
Number of substations	9			15		

(a) Not in full operation. (b) Not taken over by Hydro-Electric Commission until 1944. (c) Not available. (d) Withdrawn from service.

Since 1949 installed generator capacity at Waddamana "B" has been increased to 50,000 kW. and Tarraleah to 94,500 kW., while the new Butler's Gorge station is now in service, making total installed capacity of the system approximately 218,000 kW.

(ii) *New Capacity.* In order to cater for increasing demands for power from domestic and industrial sources, the Commission has projects under construction which, by 1954, are expected to more than double present installed capacity. Major works include the Tungatinah scheme on the Nive River, where a new station with an initial capacity of 100,000 kW. is scheduled for completion in 1953. This project will be extended at a later date by the installation of an additional 25,000 kW. unit. At a site near Launceston work is in progress on the Trevallyn scheme, involving construction of a tunnel from the South Esk to the River Tamar. The power station is to be located on the left-hand bank of the Tamar facing downstream. The ultimate capacity of the station is planned as 80,000 kW. in four units, all of which should be in service by 1954. This project is designed primarily to supply power to the Aluminium Production Commission's works at Bell Bay, but any surplus energy will be fed into the Tasmanian system.

Further development of Tasmania's hydro potential is proposed, involving the construction of two major stations and associated works. The larger, known as the Wayatinah scheme, will have an installed capacity of approximately 100,000 kW. The plan includes construction of diversion dams on the Nive River below the present Tarraleah station, with a tunnel and a canal from the Nive to the Derwent. The power station will be located near the junction of the Florentine and Derwent Rivers. A station of about 28,000 kW. is planned on the Dee River below Lake Echo. The water to be utilized in this project later passes through both the Tarraleah and Tungatinah stations.

Details of the Hydro-Electric Commission's power stations, distribution system and proposed works are shown on the map on page 1177.

(iii) *Special Features.* After 1930, every effort was made to keep pace with anticipated increases in demand by means of a progressive construction policy. The abundant and comparatively cheap supplies of electricity and other natural resources attracted to Tasmania a number of important secondary industries for which energy costs constitute a significant proportion of the total cost of production. Some of the more important organizations and their continuous power demands when plant is operating are as follows:—Electrolytic Zinc Company of Australia Ltd., 51,000 kW.; Australian Commonwealth Carbide, 6,500 kW.; Goliath Portland Cement, 1,800 kW.; Associated Pulp and Paper Mills Ltd., 8,600 kW.; Australian Newsprint Mills Pty. Ltd., 24,000 kW.; and Australian Aluminium Production Commission, 30,000 kW. (when in production). These quantities shown relate to demand on an unrestricted basis—namely during 1950—and they are not necessarily the actual amounts consumed by these organizations.

Given normal weather conditions, it was not found necessary, until recently, to impose restrictions on consumers in regard to either load or usage. With the extension of the use of electricity into new fields, however, demand for power steadily increased, and this, combined with a series of below average rainfalls, necessitated the introduction, of a power rationing scheme in March, 1951.

With the object of offsetting to some degree the trend towards centralization of the population in the larger cities, it is the policy of the Commission to extend its service to all districts. Where the costs of the extension cannot be covered by the anticipated revenue, the State Government subsidizes the extension. This has caused a substantial increase in consumption in rural districts where the electrification of farm machinery and other labour saving devices has in recent years become widespread. Also of considerable importance is the fact that the standard of living on farms has been raised, thereby tending to attract families to the country and retain those already established in rural areas.

In general, exploitation of Tasmania's hydro potential has led to a comparatively high standard of domestic life and no less than 90 per cent. of the island's population is served with electricity.

§ 7. Commonwealth Territories.

1. **Internal Territories.**—(i) *General.* The electricity supply undertakings at Canberra in the Australian Capital Territory and at Darwin, Katherine, Tennant Creek and Alice Springs in the Northern Territory are operated by the Commonwealth Government. Administration and control of these undertakings is vested in the Commonwealth Department of Works.

(ii) *Australian Capital Territory.* Supply was first established at Canberra during 1915. The Department owns steam and diesel stand-by plant of 2,100 kW. capacity which is operated in conjunction with the New South Wales Electricity Commission's generating equipment (for further details *refer* to page 1160 of this article). The major portion of the Capital City's power requirements are supplied in bulk from the New South Wales interconnected system. Within the next few years. defence projects at present under construction in Canberra will greatly increase the demand for electrical energy. These requirements will be met from the Snowy Scheme, the first section of which is scheduled for operation in June, 1954, and the power produced is to be fed into the New South Wales interconnected system at Cooma.

(iii) *Northern Territory.* At Darwin, supply was established by the Town Council in October, 1934, but later, during April, 1937, responsibility for generation and supply was placed in the hands of the Northern Territory Administration. The power station is equipped with diesel generating plant of 2,010 kW. capacity. During 1951, the first of two new 850 kW. diesel sets was placed in service—it is expected that the second set will be operating in 1952. Small diesel generating units supply the requirements of Katherine, Tennant Creek and Alice Springs.

In 1948 it was announced that the Department of Works and Housing (now the Department of Works) had selected a site for a hydro-electric station on the Adelaide River, 72 miles from Darwin. The scheme is designed to augment supply to Darwin and suburbs when the diesel equipment at present installed is unable to cope with the demand for power. No constructional work has yet been undertaken on the project.

2. **External Territories—Papua and New Guinea.**—Responsibility for the operation and establishment of electrical undertakings in Papua and New Guinea is vested in the Administration of the Territory of Papua–New Guinea, whose headquarters are located at Port Moresby. Diesel equipment totalling 1,372 kW. is in operation at Port Moresby (750 kW.), Samarai (52 kW.), Lae (360 kW.), Madang (50 kW.) and Rabaul (160 kW.). At Wau, New Guinea, supply is provided to a small number of residents in the town by the New Guinea Goldfields Ltd., operating under franchise from the New Guinea Administration. At Bulolo, near Wau, the Bulolo Gold Dredging Ltd. operates a hydro station of 5,500 kW. Power produced is used to operate the Company's dredges and bulk supplies are provided to the New Guinea Goldfields Ltd.

Vast hydro-electric potential exists in New Guinea—it has been estimated at 15,000,000 kW., but because of the island's location, absence of large load centres and lack of industrialization, only a very small proportion could, at present, be economically developed. However, there are indications that some industrial expansion will be effected in the main centres of population within the next few years.

In 1950 it was announced that the Commonwealth Government had joined with the British Aluminium Co. Ltd. of London to locate and develop large capacity hydro-electric schemes in New Guinea. A new company has been formed, known as the New Guinea Resources Prospecting Co. Ltd., with a capital of £100,000. The Commonwealth holds 51 per cent. of the shares and has a controlling interest on a board of five members. The agreement for formation and operation of the Company is administered by the Commonwealth Department of Supply, except in matters requiring compliance with the law of New Guinea, when responsibility for administration rests with the Department of Territories. Surveys and comprehensive investigations are in progress.

With a view to providing cheap power in the near future for domestic purposes and also to industry in the Port Moresby, Lae and Rapopo areas, the Department of Territories has drawn up a plan to construct a number of small hydro-electric schemes in Papua and New Guinea. These projects involve expenditure of more than £1,000,000 over the next three years.

The more important projects and estimated costs are as follows :—Port Moresby (Papua), £192,000 ; Lae (New Guinea), £200,000 ; Rapopo (New Guinea), £440,000 ; Madang (New Guinea), £200,000.

Work has commenced on the Port Moresby project which will have a capacity of approximately 10,000 kW. The estimated cost of smaller schemes is £186,000.

D. CONCLUSION.

During the next four to five years, electricity supply authorities plan to increase installed generating capacity in Australia by 2,350,000 kW. The overall cost of these works is estimated at approximately £300,000,000, based on an average of £80 per kW. for generation and £50 per kW. for transmission. This means, in effect, that each year for the next five years Australia will need to invest £60,000,000 on electric power projects alone. Imports of equipment for use in the generation of electricity were valued at about two and a half million pounds (£A.f.o.b.) in 1949-50 and at about four and a half million pounds (£A.f.o.b.) in 1950-51. The corresponding value of imports during 1939-40 was less than half a million pounds (£A.f.o.b.). By 1956, installed capacity is expected to be sufficient to satisfy unrestricted demand for electrical energy and have adequate reserve generating capacity available to provide for emergencies.

In determining the cost of electrical energy reticulated to the consumer, the main factors entering into such calculations include the geographical location of power stations in relation to the cost of fuel delivered (in the case of thermal stations) and the cost of transmission. Other elements in costs include labour, interest on capital invested and, to a certain extent, profits.

In general, the electricity supply authorities of Australia have adopted a tariff policy based on the cost of production at the power station or for the system as a whole, the class of consumer and amount consumed, the time of the day or night that consumption takes place, and the distance of the consumer from the source of supply. The only significant departure from the differential tariff policy is in Tasmania, where the Hydro-electric Commission charges a uniform tariff to all consumers of a certain class throughout the State—rates vary, of course, between the different classes of consumer, e.g. domestic or industrial. If the reticulation of electric power to new rural consumers is uneconomic, the State Government subsidizes the extension. Similar policies are in force in New South Wales and Queensland, but tariffs are not uniform in these States, i.e. they differ between metropolitan and rural localities.

Actual tariffs vary from State to State, being determined by the incidence of generation and distribution costs. Since the 1939-45 War, the price of electric power to the consumer has risen and it appears likely that this trend will continue for a number of years. With a view to encouraging the decentralization of industry to rural areas, most electricity supply authorities offer tariffs on a par with, or only slightly in excess of, those current in metropolitan areas. In both metropolitan and rural areas the average cost per unit to the consumer moves in an inverse ratio to the amount of power consumed.

The provision of adequate supplies of electric power is of such vital importance to Australia that, while its overall cost to the community and its cost to the consumer must be studied, the task of bringing supply and demand into equilibrium requires the constant attention of the authorities responsible, Commonwealth and State.

E. STATISTICAL SUMMARY, 1939-40 AND 1949-50.

The tables in this part present summaries, for the years 1939-40 and 1949-50, for each State separately and combined, relating to :—(i) the numbers and capacity of central electric generating stations, (ii) the amount of electricity generated and the number of consumers, and (iii) the values of production and output and the numbers of persons employed in the electricity supply industry.

CENTRAL ELECTRIC STATIONS.

1. NUMBER ACCORDING TO OWNERSHIP.

State.	Government.		Local Authority.		Other.		Total.	
	1939–40.	1949–50.	1939–40.	1949–50.	1939–40.	1949–50.	1939–40.	1949–50.
New South Wales ..	6	10	39	45	54	37	99	92
Victoria	8	10	38	32	32	25	78	67
Queensland	1	..	36	36	16	9	53	45
South Australia ..	1	2	14	14	28	20	43	36
Western Australia ..	2	12	29	42	79	61	110	115
Tasmania	1	2	1	..	2	1	4	3
Total	19	36	157	169	211	153	387	358

2. INSTALLED CAPACITY ACCORDING TO OWNERSHIP.

(Kilowatts.)

State.	Government.		Local Authority.		Other.		Total.	
	1939–40.	1949–50.	1939–40.	1949–50.	1939–40.	1949–50.	1939–40.	1949–50.
New South Wales ..	298,250	346,850	308,356	430,478	183,497	203,543	790,103	980,871
Victoria	360,540	553,047	(a)	(a)	(a)	(a)	414,686	619,889
Queensland	(a)	..	84,098	127,516	(a)	119,458	156,436	246,974
South Australia ..	(a)	(a)	(a)	33,370	85,771	(a)	120,081	206,743
Western Australia ..	(a)	65,001	(a)	(a)	48,578	(a)	111,640	119,396
Tasmania	(a)	(a)	(a)	..	(a)	(a)	125,980	194,950
Total	833,504	1,295,287	484,339	663,005	401,083	410,531	1,718,926	2,368,823

(a) Not available for publication.

3. INSTALLED CAPACITY ACCORDING TO SOURCE OF ENERGY.

(Kilowatts.)

State.	Steam.		Hydro.		Internal Combustion.		Total.	
	1939–40.	1949–50.	1939–40.	1949–50.	1939–40.	1949–50.	1939–40.	1949–50.
New South Wales ..	720,471	889,434	25,661	32,655	43,971	58,782	790,103	980,871
Victoria	375,530	548,500	26,495	52,419	12,661	18,970	414,686	619,889
Queensland	134,331	211,274	4,666	4,141	17,439	31,559	156,436	246,974
South Australia ..	112,041	195,336	..	..	8,040	11,407	120,081	206,743
Western Australia ..	81,562	78,225	50	68	30,028	41,103	111,640	119,396
Tasmania	750	..	125,180	194,950	50	..	125,980	194,950
Total	1,424,685	1,922,769	182,052	284,233	112,189	161,821	1,718,926	2,368,823

4. INSTALLED CAPACITY PER HEAD OF POPULATION AND PER ULTIMATE CONSUMER.

(Kilowatts.)

State.	Per Head of Population.		Per Ultimate Consumer. (a)	
	1939–40.	1949–50.	1939–40.	1949–50.
New South Wales	0.29	0.31	1.5	1.3
Victoria	0.22	0.29	1.0	1.1
Queensland	0.15	0.21	1.0	1.0
South Australia	0.20	0.30	1.0	1.3
Western Australia	0.24	0.22	1.2	1.1
Tasmania	0.52	0.70	2.5	2.6
Total	0.25	0.29	1.3	1.2

(a) See note (a) on following page.

ELECTRICITY GENERATION AND CONSUMPTION.

1. Electricity Generated.

(Million kWh.)

State.	1939–40.	1949–50.
New South Wales	2,145	3,758
Victoria	1,391	2,706
Queensland	422	972
South Australia	270	594
Western Australia	337	417
Tasmania	615	1,062
Total	5,180	9,509

2. Number of Ultimate Consumers.(*a*)

State.	1939–40.		1949–50.	
	Ultimate Consumers.	Proportion of Population.	Ultimate Consumers.	Proportion of Population.
		%		%
New South Wales	520,000	19	784,000	25
Victoria	398,000	21	557,000	26
Queensland	149,000	15	243,000	21
South Australia	120,000	20	161,000	23
Western Australia	95,000	20	109,000	20
Tasmania	50,000	21	76,000	27
Total	1,332,000	19	1,930,000	24

(*a*) Approximate figures. An "ultimate consumer" is a person, business, undertaking, etc., that has contracted to receive electric power from a public or private organization supplying this service. The number of ultimate consumers is not synonymous with the number of persons served with electricity because one ultimate consumer may embrace three or four persons, e.g., in a household.

3. Power Used per Head of Population and per Ultimate Consumer.

(Kilowatt-hours.)

State.	Per Head of Population.		Per Ultimate Consumer.	
	1939–40.	1949–50.	1939–40.	1949–50.
New South Wales	766	1,174	4,290	4,698
Victoria	712	1,460	3,383	4,510
Queensland	422	810	2,110	4,050
South Australia	450	850	2,700	2,970
Western Australia	674	700	3,370	4,170
Tasmania	3,075	3,540	12,300	10,620
Total	734	1,174	3,955	5,005

ELECTRICITY SUPPLY INDUSTRY.

VALUE OF PRODUCTION AND OUTPUT; NUMBER OF PERSONS EMPLOYED.

State.	Value of Production.(a)		Value of Output.		Persons Employed.	
	1939–40.	1949–50.	1939–40.	1949–50.	1939–40.	1949–50.
	£	£	£	£	No.	No.
New South Wales	4,466,264	7,196,816	6,196,385	15,017,542	2,148	3,968
Victoria	1,955,657	2,522,187	2,673,351	6,214,850	1,445	2,294
Queensland..	578,575	856,920	1,061,158	3,476.503	587	967
South Australia	1,157,640	950,285	1,488,071	2,788,136	1,790	1,209
Western Australia	670,935	754,312	1,396,733	2,430,501	702	1,029
Tasmania	700,066	559,728	761,711	584,112	129	128
Total	9,529,137	12,840,248	13,577,409	30,511,644	6,801	9,595

(a) Value of production is the value added in the process of generation.

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CHAPTER XXVI.

WATER CONSERVATION AND IRRIGATION.

A. RESOURCES, UTILIZATION AND NATIONAL AND INTERSTATE ASPECTS.

§ 1. Introduction.

1. **Special Article.**—Official Year Book, No. 37, pp. 1096–1141, contained a special article "The Conservation and Use of Water in Australia" prepared by Mr. Ulrich Ellis of Canberra. This article, which incorporated basic information supplied by the various Commonwealth and State Departments and other bodies connected with water conservation, presented a comprehensive picture of recent development in this field. The previous issue of the Year Book which contained such a survey was No. 23, 1930, pp. 636–661.

In subsequent issues much of Mr. Ellis's article of a statistical nature, including that contained in this chapter in recent years, has been advanced, as has the general information on the more important developments in this field, but for details of general, descriptive and historical matter reference should be made to the original article.

2. **Geographical and Climatic Factors.**—The opening section of the special article contained a simplified picture of the main geographical and climatic features of Australia, presented in order to enable the reader to appreciate the significance of the Australian water pattern. This is not reproduced, but Chapter II.—Physiography, of this issue, contains considerable detail of the climatic features of Australia with some reference to geographical features, while earlier issues of the Year Book deal exhaustively with these subjects.

3. **Statistical Aspects.**—It should be noted that the basis of recording statistics of water use differs in several States. Therefore, while every attempt has been made to present a uniform statistical picture, it has been difficult to ensure that statistics quoted as between States are strictly comparable in detail. Some steps have been taken by State authorities with a view to securing uniformity of statistical data, but until this objective has been achieved allowance should be made for this factor in this Chapter.

The Chapter deals with the conservation and utilization of water on a nation-wide or State-wide basis, and also devotes particular attention to these activities in relation to rural areas and purposes. For information on water conservation and utilization for the purpose of water supply and sewerage in the metropolitan areas, cities and towns of Australia *see* Chapter XV.—Local Government, § 5. Water Supply, Sewerage and Drainage. For additional information on hydro-electric power generation and on the various existing and projected schemes *see* Chapter XXV.—Electric Power Generation and Distribution.

4. **Select Bibliography.**—Appended to the special article in Official Year Book No. 37 is a select bibliography containing a list of selected books, reports, papers, etc. dealing with the development of the water resources of Australia and their conservation (*see* pp. 1140–1). The works included, numbering more than thirty, are classified under the headings "General", "Murray River", "Sub-surface Water", "Snowy River", "Hydro-electricity", "States" and "Catchments".

§ 2. Water Resources and their Utilization.

1. **Surface Supplies.**—Though river gaugings have been recorded over considerable periods in some parts of Australia, records elsewhere are intermittent, of short duration, or non-existent. Therefore, it is impossible at present to estimate, with any degree of reliability, the total average annual flow of Australian streams and it has been doubted whether the total annual average flow of all Australian Rivers would exceed 60,000,000 acre feet, a figure small in comparison with the flow of rivers in other continents, some examples of which are given below expressed as mean annual discharges in millions of acre feet: Nile, 72; Danube, 228; Amazon, 1,780; Volga, 148; Mississippi, 474; and the ten main rivers of the United States of America, 900 (in the aggregate).

2. **Major Dams and Reservoirs.**—The table below lists existing major dams and reservoirs, together with those under construction or projected, as at the middle of 1951.

MAJOR DAMS AND RESERVOIRS IN AUSTRALIA.

Name.	Location.	Capacity (Acre feet).	Height of Wall (Feet).	Remarks.
		Existing Dams and Reservoirs.		
Hume	Murray River near Albury	1,250,000	106	Part of Murray River Scheme—storage for domestic, stock and irrigation purposes. To be increased to 2,000,000 acre feet.
Miena	Great Lake, Tasmania	1,125,000	40	Regulates water to Waddamana hydro-electric power station.
Burrinjuck	Murrumbidgee River, New South Wales	771,640	247	Storage for irrigation and production of hydro-electric power.
Lake Victoria	Murray River near South Australian border, in New South Wales	551,700	..	Natural storage for irrigation in South Australia.
Waranga	Goulburn River, Victoria	333,400	..	Earthen embankment, 23,800 feet long. Irrigation storage.
Eildon	Upper Goulburn River, Victoria	306,000	..	Rock filled embankment, 2,300 feet long and concrete spillway, 700 feet. Irrigation storage.
Wyangala	Lachlan River, New South Wales	303,900	190	Storage for domestic, stock and irrigation purposes and for generation of hydro-electric power.
Clark	Derwent River, Tasmania	243,000	200	Serves Tarraleah hydro-electric power station.
Avon	Nepean River, New South Wales	173,800	230	Part of Sydney water supply.
Glenmaggie	Gippsland, Victoria	106,000	100	Storage for irrigation.
		Dams and Reservoirs under Construction or Projected.		
Adaminaby	Eucumbene River, New South Wales	3,500,000	330	Projected as part of Snowy Mountains Hydro-electric Scheme.
Eildon	Upper Goulburn River, Victoria	2,750,000	..	Existing dam being enlarged for irrigation storage and production of hydro-electric power.
Menindee Lakes Project	Darling River near Menindee, New South Wales	2,000,000	..	Part of Darling River water conservation scheme—under construction.
Warragamba	Warragamba River, New South Wales	1,678,500	415	Under construction for Sydney water supply.
Jindabyne	Snowy River, New South Wales	1,200,000	260	Projected as part of Snowy Mountains Hydro-electric Scheme.
Upper Murray	Upper Murray River, New South Wales	Not less than 1,000,000	..	,, ,, ,, ,,
Blowering	Tumut River, New South Wales	846,000	300	Projected as part of Snowy diversion scheme.
Somerset	Stanley River, Queensland	724,000	130	Under construction for Brisbane-Ipswich water supply.
Burrendong	Macquarie River, near Wellington, New South Wales	650,000	193	Under construction for rural water supplies.
Warkworth	Wollombi Brook (Hunter Valley), New South Wales	400,000	100	Projected as a flood mitigation dam for the Hunter Valley.
Keepit	Namoi River, near Gunnedah, New South Wales	345,000	135	Under construction for rural water supplies.
Tantangara	Murrumbidgee River, New South Wales	300,000	150	Projected as part of Snowy Mountains Hydro-electric Scheme.
Glenbawn	Hunter River, near Scone, New South Wales	296,000	240	Under construction as part of Hunter Valley conservation work.
Upper Yarra	Yarra River, Victoria	110,000	270	Under construction for Melbourne water supply.
Lake Brewster	Lachlan River, near Hillston, New South Wales	108,000	..	Storage of rural water supplies for the Lower Lachlan —works almost complete.

3. **Irrigation.**—(i) *History.* For some brief remarks on the history of irrigation in Australia referring to the efforts of the Chaffey Brothers and to the Victorian Irrigation Act in 1886 *see* previous issues.

(ii) *Extent and Nature of Irrigated Culture.* About half of Australia's irrigated acreage is now in Victoria, and about two-thirds is situated along the Murray and its tributaries (including the Murrumbidgee) in the three States of New South Wales, Victoria and South Australia. In these areas served by the Murray and its tributaries irrigation water is used extensively for vines, orchards, pastures, fodders, and for domestic and stock purposes. Approximately half of Queensland's irrigated acreage is devoted to sugar cane. Western Australia's small irrigated acreage is confined to areas in the south-west where fodders and pastures are served. Irrigation schemes have not been developed in Tasmania or the Northern Territory.

The following table shows the area of land irrigated in each State during the years 1938–39 to 1941–42 and 1945–46 to 1950–51 :—

AREA OF LAND UNDER IRRIGATED CULTURE.

(Acres.)

Season.	N.S.W. (a)	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	A.C.T.	Australia.
1938–39 ..	*b*183,518	515,357	48,953	43,602	14,278	8,599	50	814,357
1939–40 .	326,875	517,903	55,153	44,470	15,443	8,656	263	968,763
1940–41 ..	325,075	596,662	60,961	46,268	14,513	8,821	391	1,052,691
1941–42(*c*) ..	354,762	602,074	(*d*)	45,757	15,060	6,975	48	(*d*)
1945–46 ..	331,030	656,845	68,347	42,192	16,864	11,279	502	1,127,059
1946–47 ..	544,775	708,590	79,030	46,145	17,947	9,326	743	1,406,556
1947–48 ..	510,168	686,848	84,052	42,583	19,197	9,908	574	1,353,330
1948–49 ..	576,723	722,968	91,417	48,185	25,381	9,563	539	1,474,776
1949–50 ..	628,610	662,290	90,543	49,089	31,573	7,525	637	1,470,267
1950–51 ..	597,773	716,051	83,150	79,062	28,197	7,242	468	1,511,943

(*a*) Includes pasture and fallow lands. Source: Water Conservation and Irrigation Commission.
(*b*) Excludes pasture and fallow lands. (*c*) Details for years 1942–43 to 1944–45 are not available.
(*d*) Not available.

The next table shows the area of land irrigated in each State during 1950–51 according to the nature of irrigated culture.

AREA OF LAND UNDER IRRIGATED CULTURE, 1950–51.

(Acres.)

Crop.	N.S.W.(*a*)	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	A.C.T.	Aust.
Cereals for Grain	51,527	25,264	(*b*)	(*b*)	(*b*)	(*b*)	(*b*)	76,791
Rice	37,223	..	(*b*)	..	..	..	..	37,223
Vegetables ..	15,454	15,911	17,473	7,841	6,777	(*b*)	145	63,601
Orchards ..	17,485	35,205	2,278	13,054	3,872	981	..	156,000
Vineyards ..	11,692	42,582		28,506	345	..	..	
Sugar-cane ..	..	..	45,108	..	..	..	..	45,108
Hops	..	..	..	..	..	1,075	..	1,075
Cotton	..	..	219	..	..	..	..	219
Other Crops (including Fodder and Fallow land)	81,687	48,209	(*c*)14,949	4,230	877	486	301	150,739
Total Crops	215,068	167,171	80,027	53,631	11,871	2,542	446	530,756
Pastures ..	382,705	*d* 548,880	3,123	25,431	16,326	4,700	22	981,187
Total ..	597,773	716,051	83,150	79,062	28,197	7,242	468	1,511,943

(*a*) Source: Water Conservation and Irrigation Commission. (*b*) Included in Other Crops.
(*c*) Includes tobacco, 2,969 acres. (*d*) Includes lucerne for pasture, 26,692 acres.

(iii) *Irrigation Trends.* In Official Year Book, No. 37, p. 1099, the following trends in irrigation practice were described, viz. :—the improvement of irrigation techniques in established areas, a growing appreciation of the benefits and necessity of irrigation in humid and sub-humid areas with a flush annual rainfall, the use of irrigation to stabilize the stock industries, especially on an " extensive " basis, consideration regarding the provision of weirs to prevent the entry of salt water, the increasing quest for cheap electric power to aid pumping operations for stock, domestic and irrigation purposes, and an increase in the extent of spray irrigation.

(iv) *Research.* Comprehensive programmes of research and investigation are being pursued by State water and agricultural authorities and the Commonwealth Scientific and Industrial Research Organization, often in collaboration. Special attention is being given to the following :—high water tables due to the application of water to land where no natural drainage lines exist, or where drainage lines are too small to cope with extra water ; presence of salt in semi-arid soils, resulting in surface accumulation ; salinity of water, which makes it unsuitable for human beings, stock and plant life ; adverse reactions of semi-arid soil types to increasing quantities of water which affect the sub-soil ; increasing density of stock on irrigated pastures which leads to the spread of such diseases as foot rot and fluke in sheep, and mastitis and contagious abortion in cattle ; and growth problems affecting plants and trees.

The Commonwealth Scientific and Industrial Research Organization maintains the following research stations :—Merbein (Victoria)—horticultural problems, particularly of the dried vine fruits industry ; Griffith (New South Wales)—influence of irrigation on plant life (using horticultural trees and vegetables as test plants), land drainage and soil structure ; Deniliquin (New South Wales)—pastures ; Werribee (Victoria)—diseases of dairy cattle. These stations are in close contact with the settlers. In the maintenance of Merbein and Griffith Stations the Commonwealth is assisted, financially and otherwise, by the New South Wales Water Conservation and Irrigation Commission, by the Dried Fruits Export Control Board and by private organizations.

The Soils Division of the Organization has made detailed surveys of more than a million acres since 1927, with less detailed reconnaissance surveys over many millions of acres. The Division works closely with State authorities. The keynote of soil investigations is relationship between soil and land use, and there is an increasing tendency to seek such surveys before irrigation districts are established.

The Irrigation Research and Extension Committee plays an important part in the agricultural activity of the Murrumbidgee Irrigation areas. It is representative of the State Department of Agriculture, the Commonwealth Scientific and Industrial Research Organization, the Rural Bank of New South Wales, the Soil Conservation Service of New South Wales and certain farmers' organizations (including Extension Groups). Finance is provided by these authorities on an agreed basis. The objectives are :—to enable the agricultural extension services to the farmers in the defined sub-region to be continued and developed ; to provide a system for advising on local agricultural policy and organization ; to provide means for farmer opinion to have due weight in the consideration of regional agricultural administration and policy ; to achieve a unified approach to sub-regional extension in all branches of agriculture ; to advise on the research needs of the sub-region and the co-ordination of the agricultural research of the various rural institutions working therein ; to achieve close liaison between research and extension ; and to conduct research in extension methods.

4. **Preservation of Catchments.**—As water conservation commences on the catchments it is becoming increasingly recognized that anything which interferes with catchment efficiency affects the quantity of water available for all purposes. Active steps are being taken to counteract soil erosion, to conserve soil generally, and to minimize effects of floods, overstocking, bush fires, and destruction of vegetative cover. All States and the Commonwealth have initiated forestry policies which provide for reafforestation and the preservation of catchments. In recent years efforts to counteract soil erosion have been intensified and there is some evidence of a more unified approach to catchment, water, forestry, and land use factors regarded as parts of a single problem.

5. **Hydro-electric Power.**—Hydro-electricity is generated in all States except South Australia and Western Australia and the Northern Territory. Water is the sole source of electric power in Tasmania, all other States depending largely on steam and oil. On the mainland it is usual to allot water for irrigation purposes, combining this with hydro-electricity to whatever extent is possible. During summer, when irrigation is proceeding, there is ample discharge for power, but in the non-watering period the main objective is to store water. Information on existing and projected hydro-electric schemes is given in later sections of this Chapter, and the subject of the generation of electric power from water resources is discussed in this issue in Chapter XXV.—Electric Power Generation and Distribution, which contains, in addition, further particulars of the various schemes.

6. **Sub-surface Supplies.**—(i) *General.* While a more or less complete general picture of the available and potential surface water resources exists, much remains to be done with regard to the location and development of sub-surface supplies (artesian, sub-artesian and ground water), in view of their importance as the basis of settlement over large areas of Australia.

The extent and potentials of the artesian basins—particularly the Great Artesian Basin—have been fairly accurately determined, and the use of sub-artesian supplies is extensive and more development is possible. The shallower groundwater supplies, however, particularly along alluvium valleys and coastal sandbed areas, have not been investigated and developed in any degree, except in a few localities.

(ii) *Artesian and Sub-artesian Supplies.* Pressure water, variable in quantity and quality, either artesian or sub-artesian, is obtainable in many parts of Australia, the various artesian basins extending over approximately one-third of the continent.

The Great Artesian Basin, the most extensive in the world, underlies an area of approximately 550,000 square miles, comprising about 350,000 in Queensland, 76,000 in New South Wales, 100,000 in South Australia and 24,000 in the Northern Territory. Of the numerous defined major and minor water-bearing basins in Australia, the following are the principal :—

PRINCIPAL WATER-BEARING BASINS : AUSTRALIA.

Name.	State.	Geological Age.	Area.	Depth of Water.
			Square Miles.	Feet.
Great Artesian	Queensland, New South Wales, South Australia and Northern Territory	Cretaceous-Jurassic	550,000	Up to 7,000
Murray	Victoria, New South Wales, and South Australia	Miocene	107,000	100 to 900
Torrens	South Australia	Recent Pleistocene	4,000	Up to 600
Coastal Plain	Western Australia	Recent Jurassic	10,000	200 to 2,500
Adelaide	South Australia	Recent Oligocene	1,100	100 to 500
Gippsland	Victoria	Pleistocene-Oligocene	1,800	200 to 1,800
Port Phillip	Victoria	Pleistocene-Oligocene	300	Up to 600
Eucla	Western Australia, South Australia	Pliocene-Miocene	68,000	300 to 2,000
North-west	Western Australia	Tertiary Permian	40,000	400 to 4,000
Collie	Western Australia	Permian	500	..
Desert	Western Australia	Permian	130,000?	200 to 3,000

More than 3,000 artesian bores have been constructed within the Great Artesian Basin and the daily free discharge from all bores continuing to flow in Australia has been stated to exceed 350 million gallons, of which the loss by evaporation and seepage has been estimated at more than 90 per cent. Sub-artesian bores and wells throughout Australia number more than 200,000.

Artesian water generally is good stock water, but it is unsuitable for plant life; while in certain areas sub-artesian waters are suitable for all uses including irrigation. In some districts a considerable amount of irrigation is carried out from shallow ground water supplies.

In common with other countries possessing artesian supplies, Australia has been faced with the problem of flow diminution. It was recognized early that flows were diminishing as more bores were drilled, but it is now considered that while many of the bores will ultimately cease to flow, many will not cease, but will assume a perpetually steady rate of flow, corresponding with the average intake of water from rainfall absorbed by sandstone outcrops. Diminution in flows from artesian bores has emphasized the need to eliminate wastage as much as possible, and investigations have been made regarding wasteful methods of distribution of artesian water by open channels or "bore drains" and the careless use of water. (For greater detail on this subject *see* Official Year Book No. 37, pp. 1103–4.)

(iii) *Ground Water.* Ground water supplies are used in various parts of Australia for industry, irrigation, stock and domestic purposes the most notable scheme being that conducted by the Hunter District Water Board where ground water from the Tomago sandbeds near the mouth of the Hunter River, New South Wales is used to supplement water storages fed from surface sources. For further information on ground water *see* Official Year Book No. 37, p. 1104.

7. **Industrial, Metropolitan and Country Town Supplies.**—Details relating to urban water supply systems will be found in Chapter XV.—Local Government of this Year Book.

§ 3. National and Interstate Aspects.

1. **General.**—As the government of Australia is conducted under a Federal system, and as the Commonwealth Constitution makes special reference to water problems, both the Federal and the State Governments have an interest in the control and conservation of water. As main responsibility for control of water resources resides in the State governments, and as political boundaries sometimes intersect river valleys and catchments, co-operation between governments has been necessary to develop resources in certain cases. Specific examples of Commonwealth–State and interstate co-operation and approach are given in the following sections.

In the Report on Irrigation, Water Conservation and Land Drainage presented to the Commonwealth Government by the Rural Reconstruction Commission in 1945 national aspects of water conservation and use were emphasized. The report recommended the adoption of an all-Australian plan, having the assent of the various governments, to obviate lack of co-ordination, and that the Commonwealth should endeavour to promote interstate co-operation and co-ordinated development generally.

Following a resolution of the Australian Agricultural Council, the Irrigation Production Committee was established in 1938 for the purpose of carrying out comprehensive investigations into the various agricultural activities of lands irrigible by the River Murray and its tributaries in order to co-ordinate developmental activity there, but its work was interrupted by the war. Resuscitated in 1946 as the Irrigation Production Advisory Committee, and representative at first of the Commonwealth and the States of New South Wales, Victoria and South Australia, and later also of such other States as desired representation, with the Commonwealth Director-General of Agriculture as chairman, its functions are :—(*a*) to prepare for the consideration of the Australian

Agricultural Council, or any Committee of Ministers appointed by the Council, conclusions formed from investigations to be carried out by Commonwealth and State Officers into the various agricultural industries which it is possible to develop on irrigated lands; (*b*) to undertake long-term co-ordination of land utilization in irrigible areas served by the River Murray and its tributaries, this involving co-ordination of all available lands and the carrying out of such supplementary investigations as may prove necessary.

2. **Murray River Scheme.**—(i) *General.* The Murray River and its tributaries form the largest river system in Australia. The catchment is approximately 414,000 square miles or one-seventh of the area of the Australian continent, comprising five-sixths of New South Wales, over one-half of Victoria, one-sixth of Queensland, and one-fortieth of South Australia. The Murray proper is 1,600 miles long. Its main tributaries are the Murrumbidgee (1,050 miles), the Darling (1,760 miles), and the Goulburn (280 miles). The average annual flow of each of the chief contributory streams is as follows:—Upper Murray, including the Mitta Mitta and Kiewa Rivers, 3,400,000 acre feet; Murrumbidgee River, 2,600,000 acre feet; Goulburn River, 2,250,000 acre feet; Darling River, 2,150,000 acre feet; and Ovens River, 1,200,000 acre feet. Irrigated production in the River Murray basin is mainly in the form of wine, dried fruits, fresh fruits, dairy produce, wool, fat lambs, rice, vegetables, poultry, eggs and pigs.

For a brief summary of the historical events leading up to the River Murray Agreement (1915) by the Governments of the Commonwealth, New South Wales, Victoria, and South Australia *see* previous issues of the Year Book. The Agreement provided for the construction of works, the allocation of the water between the three States, and the appointment of a Commission to implement the Agreement. The Commission comprises four Commissioners, representing the Commonwealth and the three States respectively. The Commonwealth representative presides.

(ii) *River Murray Waters Agreement.* Under the Agreement construction works are carried out by the States (who are also responsible for maintenance) subject to the approval and direction of the Commission. The Agreement provides that the minimum quantity of water to be allowed to pass for supply to South Australia in each year shall be sufficient to fill Lake Victoria storage once, and with the aid of water returned from Lake Victoria, to maintain certain specified flows in the lower river varying from 47,000 acre feet per month in the winter months to 134,000 acre feet per month in the four summer months of maximum demand—the total amounting to 1,254,000 acre feet over twelve months. These flows are to meet domestic and stock requirements in South Australia, losses of water in lockages and evaporation losses other than in the lakes at the Murray mouth, together with 603,000 acre feet per annum for diversion from the Murray for irrigation in South Australia. The flow at Albury is shared equally by New South Wales and Victoria, and each of these States has full control of its tributaries below Albury, subject in each case to the fulfilment of the South Australian allocation.

Under the original agreement the major works comprised two large storages—one on the Upper Murray above Albury (the Hume Dam) and the other at Lake Victoria in New South Wales near the South Australian border. In addition, provision was made for a number of weirs and locks along the Murray and Murrumbidgee Rivers. In 1934 the Agreement was varied to provide for the construction of a diversion weir at Yarrawonga (145 miles downstream from the Hume Dam), and the provision of barrages at the mouth of the River to prevent the entry of salt water. The amendment also limited the original proposal for 26 weirs and locks on the Murray and 9 on the Murrumbidgee to 13 on the Murray and 2 on the Murrumbidgee. At the same time it was agreed that the Hume Dam should be completed to a capacity of 1,250,000 acre feet with provision for later increase to 2,000,000. As a result of the amendment, continuous navigation is limited to a route of 600 miles, extending from the mouth to a point some 50 miles above Mildura. All works authorized under the amended Agreement (except the enlargement of the Hume Dam to 2,000,000 acre feet) have been carried out at a total cost of £12,000,000, of which approximately half represents the cost of the Hume Dam. Expenditure has been shared equally by the Commonwealth and the three States.

At a Ministerial Conference held in October, 1948, the four parties to the Agreement resolved that the enlargement of the Hume Reservoir to 2,000,000 acre feet and the doubling of the capacity of the inlet channel to Lake Victoria storage should be proceeded with immediately at a further estimated cost of £2,000,000. The resolutions of the Conference were subsequently incorporated in an amending agreement which was ratified by legislation by all parties. Under the terms of the amending agreement, the States of New South Wales and Victoria are required to report annually on the condition of the Hume Reservoir catchment and to take any special action recommended by the River Murray Commission in regard thereto. The River Murray Commission has also power to initiate proposals for the better conservation and regulation of the waters of the Murray, and may cause surveys and investigations concerning such proposals to be undertaken.

At the Conference of Ministers held in July, 1949, to consider the diversion of the Snowy River, Conference decided that, by diversion of streams in the Snowy Mountains area, an average of approximately 400,000 acre feet per annum would be added to the Murray River. Although a minimum storage of 250,000 acre feet would be necessary to regulate this additional water, Conference considered it would be unwise to limit to this capacity any storage which might be constructed, and felt that a storage of not less than 1,500,000 acre feet should be provided, in order to give additional regulation of the Murray River itself as well as to provide for regulation of the diverted waters. Hydro-electric potentialities would also affect the size of the storage.

It was agreed, therefore, to ask the River Murray Commission to investigate the position and to determine the optimum size of the proposed storage it considered should be constructed and also its location. Investigations into the hydrographic aspects of the maximum practicable regulation of the waters of the Upper Murray, including diversions from the Snowy River, have been undertaken and the results are now under consideration by the Commission. Investigations into the hydro-electric potentialities are also in hand.

The total estimated quantity of water diverted in 1949–50 for irrigation and other purposes from the Murray and its tributaries (under the River Murray Agreement) was as follows (in acre feet):—New South Wales, 1,029,257; Victoria, 1,429,524; South Australia, 182,560; a total of 2,641,341 acre feet.

(iii) *River Murray Works.* One of the major works of the Murray River Scheme is the Hume Dam, situated just below the junction of the Murray and Mitta Mitta Rivers, 10 miles above Albury, forming a lake of 33,000 acres. The design comprises a mass concrete spillway and outlet works extending 1,000 feet and an earthen embankment 106 feet high extending for 4,000 feet across the river flats. The length of the total structure is approximately 1 mile. Ultimate plans include provision for hydro-electric generation, and preliminary works associated with the construction of the power station are now in hand. Attention is also being given to the completion of the dam to its designed capacity of 2,000,000 acre feet and also to the enlargement of the inlet channel to Lake Victoria, necessary to permit greater storage of periodic flood flows of short duration.

The Yarrawonga Diversion Weir was completed in 1939 to raise the river level so that water could be diverted by gravitation into main channels constructed on either side of the river. Between the Yarrawonga Weir and the Murray mouth, thirteen weirs and locks have been built. Two flood diversion weirs have been constructed on the Murrumbidgee—one between Hay and the Lachlan Junction; and the other below the Lachlan Junction.

The Mulwala Canal, served by the Yarrawonga Weir, has an off-take capacity of 2,500 cubic feet per second, and will serve 1,500,000 acres of land in New South Wales. The Yarrawonga Channel, on the Victorian side, has an off-take capacity of 1,250 cubic feet per second, and is designed to serve 270,000 acres. Only a portion of both these areas will be irrigated.

Adjoining the river in New South Wales and 35 miles from the Murray-Darling Junction, Lake Victoria storage was completed in 1928 with a capacity of 551,700 acre feet and a surface area of 27,670 acres. The water released from Lake Victoria is used by the South Australian settlements.

Five barrages across channels near the Murray River mouth connecting Lake Alexandrina with the sea were completed in 1940 to prevent ingress of salt water to Lakes Alexandrina and Albert and to the lower river, thereby increasing the productivity of adjacent lands. The structures maintain a sufficiently high level for 50 miles up river to permit watering by gravitation of a considerable area of reclaimed river flats. The total distance across the barrages and intervening islands is 15 miles.

In addition to the works carried out under the auspices of the Commission, the separate States have constructed thousands of miles of distribution channels and provided a number of storages on the tributaries, thereby contributing very materially to the large amount of irrigation development in the Murray Basin. The total capacities of such main storages are: New South Wales—Burrinjuck (Murrumbidgee), 771,640 acre feet; Wyangala (Lachlan), 303,900 acre feet; Victoria—Eildon (Goulburn), 306,000 acre feet (now being increased to 2,750,000 acre feet); Waranga (Goulburn), 333,400 acre feet. No storages exist on the Murray in South Australia. More details of these and other State works on Murray tributaries will be found in the sections dealing with State systems.

3. **New South Wales–Queensland Border Rivers Agreement.**—The New South Wales–Queensland Border Rivers Agreement provides for the construction of certain works on parts of those portions of the Severn, Dumaresq, Macintyre and Barwon Rivers which constitute part of the boundary between New South Wales and Queensland, for the furtherance of water conservation, water supply and irrigation in those States. The Agreement, which was ratified by the Parliaments of both States, was executed on 27th November, 1946 and came into effect on 1st July, 1947. However, the Dumaresq-Barwon Border Rivers Commission, which is charged with the duty of giving effect to the Agreement and the ratifying Acts, was not constituted until 1st May, 1948.

The works to be constructed comprise a dam on the Dumaresq River at a site to be selected by the Commission to give a storage basin with a capacity as large as is reasonably practicable and not less than six nor more than twelve weirs as may be found necessary to meet the requirements of irrigation along the rivers. Provision is also made for the construction of not more than four regulators in the effluents from the barrier rivers and for the taking over of the existing weir in the Macintyre River at Goondiwindi and the existing weir in the Barwon River at Mungindi. The costs of these works and of administration are to be borne by the States in equal shares. The agreement further provides that the water discharged from the Dumaresq storage, whether by regulated or unregulated flow, shall be available to the two States in equal shares.

The Water Conservation and Irrigation Commission of New South Wales, which is the constructing authority for the dam, has for some time past been carrying out investigations of alternate dam sites on the Dumaresq River near Mingoola Station Homestead which is approximately 39 miles from Tenterfield. Although well advanced, these investigations have not proceeded sufficiently far to enable the Border Rivers Commission to determine the most suitable site, the height of the dam wall or the capacity of the storage.

The Irrigation and Water Supply Commission of Queensland, which is the constructing authority for the new weirs and regulators, has carried out detailed investigations as to sites for such works. The Border Rivers Commission authorized construction of a weir on the Dumaresq River near Bonshaw, known as the Bonshaw Weir, and work has been in progress since June, 1949. Owing to abnormal flood conditions in the river and difficulty experienced in obtaining plant and materials, construction has not yet been completed.

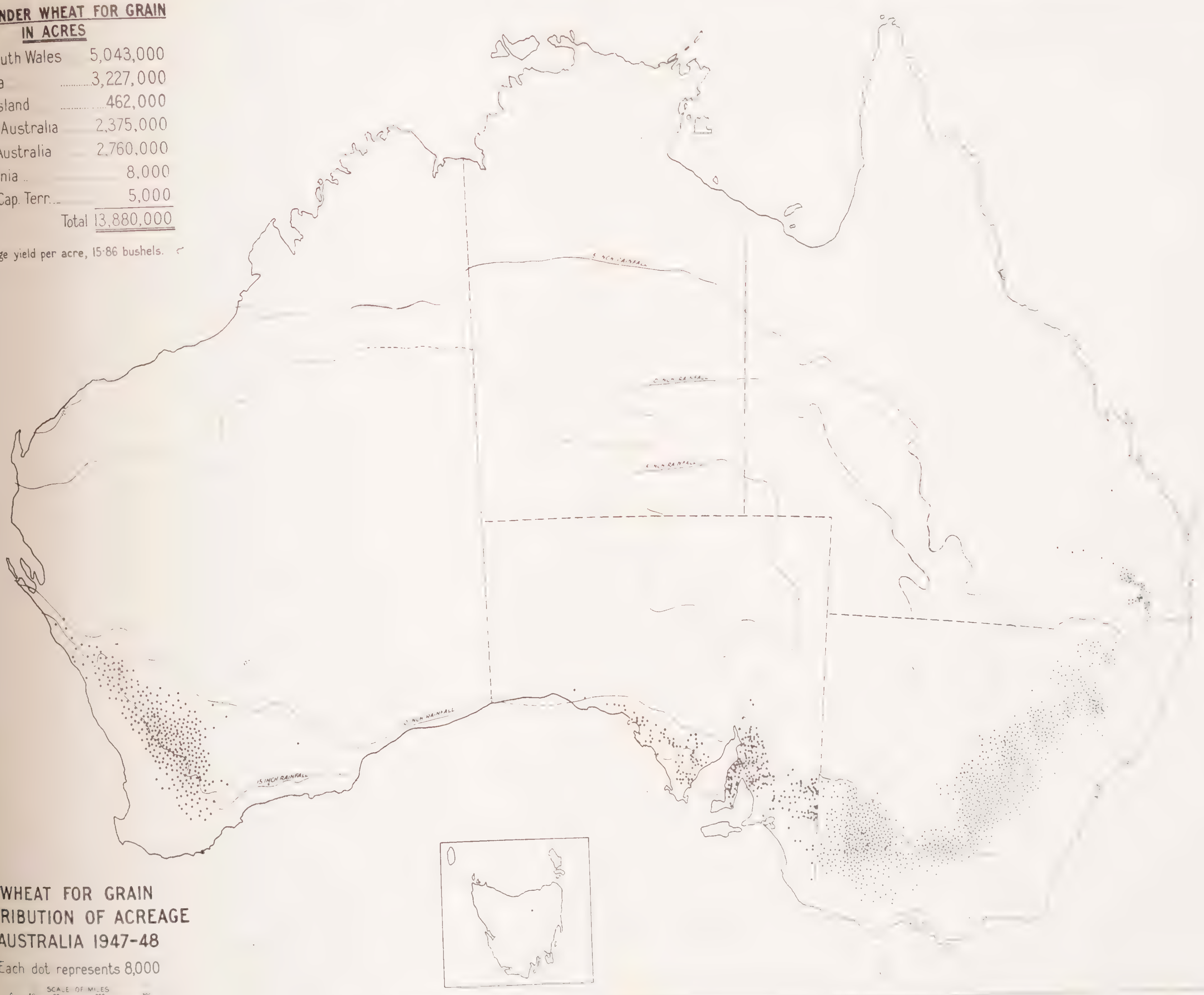
The Border Rivers Commission has also authorized the construction of a further weir, to be known as the Cunningham Weir, at a site at mileage 42.25 in the Dumaresq River, but work has not been commenced owing to the difficulty in obtaining technical staff, plant and materials. Investigations are proceeding in regard to the remaining weirs and regulators. The existing Goondwindi and Mungindi Weirs have been taken over and are being maintained, operated and controlled by the Queensland Irrigation and Water Supply Commission.

The catchments for the border streams (2,000 square miles) extend to the granite areas in the vicinity of Tenterfield (New South Wales) and Stanthorpe (Queensland), and elevation rises to 3,000 feet. Average rainfall is 30 inches. The catchments and the

AREA UNDER WHEAT FOR GRAIN IN ACRES

New South Wales	5,043,000
Victoria	3,227,000
Queensland	462,000
South Australia	2,375,000
West Australia	2,760,000
Tasmania	8,000
Aust. Cap. Terr.	5,000
Total	13,880,000

Average yield per acre, 15·86 bushels.


5 INCH RAINFALL
INCH RAINFALL
INCH RAINFALL
INCH RAINFALL
15 INCH RAINFALL

WHEAT FOR GRAIN DISTRIBUTION OF ACREAGE AUSTRALIA 1947-48

Each dot represents 8,000

SCALE OF MILES
0
50
100
200
300

areas suitable for irrigation are approximately equal in each State. Climatic conditions are such that it is necessary to supplement rainfall from April to October by irrigation to stabilize and increase production. The capacity of the area to grow lucerne and tobacco under irrigation has already been demonstrated. Irrigation of cotton, root crops, cereals, and citrus fruit, and expansion of the fat stock industry, is being examined.

4. Snowy Mountains Hydro-electric Scheme.*—(i) *General.* Following a comprehensive investigation into both the water and power potential of the Snowy River waters by a Technical Committee representative of the Commonwealth and the States of New South Wales and Victoria in 1947 and 1948, and the submission by the committee of reports in 1948 and 1949, the Commonwealth Parliament in July, 1949 passed the Snowy Mountains Hydro-electric Power Act (No. 25 of 1949) setting up an Authority to implement the proposals agreed upon.

The basis of the proposals is to impound the Snowy River waters at high elevations and, by diverting them into tunnels passing under the Alps, to use their potential power for the generation of electricity and then to discharge them into the Murray and Murrumbidgee River systems for use in the irrigation areas.

The scheme will be constructed in two parts, the first being known as the Snowy-Murray system, where the water is to be diverted by tunnel from a large dam across the Snowy River at Jindabyne, to the Swampy Plains River in the Murray Valley; and the second as the Snowy-Tumut system, the water in which will be diverted by tunnel from a dam on the Eucumbene River—a tributary of the Snowy—at Adaminaby, to the Tumut River, a tributary of the Murrumbidgee. The whole scheme will involve the construction of:—seven major dams (with a total storage capacity of approximately 7,000,000 acre feet); sixteen power stations; 86 miles of tunnels varying in diameter from 18 feet to 42 feet—one projected tunnel 30 miles long under the Alps will be one of the largest in the world; nearly 500 miles of racelines at high elevations.

The total expenditure is estimated at £225,000,000 including £100,000,000 for transmission lines. The scheme will form the greatest engineering and developmental work ever undertaken in Australia and one of the major engineering projects of the world.

(ii) *Snowy Mountains Hydro-electric Power Act* 1949. The Snowy Mountains Hydro-electric Authority is constituted by a Commissioner: he is assisted by two Associate Commissioners. The functions of the Authority are defined in the Act as follows:—(*a*) to generate electricity by means of hydro-electric works in the Snowy Mountains area and (*b*) to supply electricity so generated to the Commonwealth (i) for defence purposes and (ii) for consumption in the Australian Capital Territory. The general powers of the Authority as defined in the Act are as follows:—For the purpose of performing its functions the Authority shall have power to construct, maintain, operate, protect, manage and control works—(*a*) for the collection, diversion and storage of water in the Snowy Mountains Area; (*b*) for the generation of electricity in that area; (*c*) for the transmission of electricity generated by the Authority; and (*d*) works incidental or related to the construction, maintenance, operation, protection, management or control of any of the works specified above. The Act provides that the Authority may sell to a State, or to an authority of a State, electricity generated by the Authority which is not immediately required by the Commonwealth for defence purpose or for consumption in the Australian Capital Territory.

(iii) *The Authority's Objectives and Programme.* The two basic objectives are—(*a*) early production of electricity; and (*b*) early diversion of water inland.

(NOTE.—The following information was furnished in September, 1951.)

The Authority is expanding its day-labour forces to undertake types of work which are unsuitable for execution by contract, and, so as to reduce to a minimum the demand on local resources, is procuring from overseas most of its professional staff and skilled and unskilled labour and materials in local short supply. The Authority's personnel on 1st August, 1951, was as follows:—Professional staff, 260; other technical staff, 140; administrative and accountancy officers, 350; skilled and unskilled labour, 2,000.

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* *See also* Chapter XXV.—Electric Power Generation and Distribution, pp. 1154–7.

The Department of Public Works, New South Wales, has undertaken the design and construction of Adaminaby Dam, and the Department of Main Roads, New South Wales and the Snowy Shire have undertaken the reconstruction of over 70 miles of existing roads. A large proportion of the building construction now in hand is being carried out by oversea contractors who import prefabricated sections of the buildings and the labour to erect them. A contract has been placed with an oversea firm for the design and construction of the complete Guthega Project on the Upper Snowy River. The contractor will bring his staff, labour, construction equipment and material from overseas. For some detail of the preliminary work of the Authority *see* previous issue of the Year Book.

(iv) *Development of Power.* It is anticipated that the first instalment of power, estimated at approximately 60,000 kW., will be available by 1954, and additional generating capacity is scheduled to become available gradually up to over 500,000 kW. by 1959.

B. STATES AND TERRITORIES.

§ 1. Australian Local Pattern of Water Conservation and Use.

The foregoing sections dealt generally with water conservation and irrigation in Australia and with national and interstate projects. The following survey indicates the local pattern of water resources and the steps taken by State Governments to bring about their development. It will be seen that water policies in the various States tend to assume a distinctive and characteristic pattern closely allied with climatic conditions and specific local needs.

In Victoria almost every form of water scheme is in operation. In New South Wales major emphasis at present is on irrigation and stock development in the dry areas along the Murray and Murrumbidgee Rivers, though a substantial scheme of intensive irrigation is being conducted in the Murrumbidgee Irrigation Areas. In Queensland, up to the present, the predominant emphasis has fallen on water for the stock industries (mainly underground sources), and the development of small irrigation schemes in sub-humid and humid areas, especially to stabilize sugar production.

Apart from regular irrigation practices along the Murray River, South Australian authorities are vitally concerned with reticulated supplies for rural areas and towns. Western Australia has developed unique rock catchments and piped supplies for agricultural areas and towns in dry districts. Tasmanian interest appertains to hydro-electric generation almost exclusively. The Northern Territory is primarily concerned with stock supplies and the safeguarding of long stock routes.

§ 2. New South Wales.

1. **General.**—(i) *Rainfall and History.* In issue No. 37 of this publication (p. 1110) information on the pattern of rainfall and the history of irrigation in New South Wales preceded the description of water conservation and use in that State, but it has now been omitted. Chapter II.—Physiography, of this issue, however, contains particulars of climatic conditions in each State.

(ii) *Administration.* Under the amendment of the Irrigation Act, made by the Conservation Authority of New South Wales Act, 1949, which came into force on 1st July, 1949, the Water Conservation and Irrigation Commission of New South Wales now consists of three members appointed by the Governor, one of whom is appointed as Chairman. The operations of the Commission cover water conservation, control of irrigation areas, establishment, operation and maintenance of works for domestic and stock water supply, irrigation districts, flood control districts, sub-soil drainage districts, constitution of water trusts, the issue of licences for private irrigation, artesian and shallow boring, and a farm water supply scheme.

Under the Water Act the right to the use and flow, and the control of water in all rivers and lakes which flow through, or past, or are situated within, the land of two or more occupiers, is vested in the Crown. A system of licences also operates for the protection of private works of water conservation, irrigation, water supply, drainage, and prevention of inundation.

For particulars of the New South Wales-Queensland Border Rivers Agreement ratified by Acts of both States in 1947 *see* page 1210 *ante*.

2. **Schemes Summarized.**—(i) *Location and Type.* The bulk of irrigated land is along the Murray and its tributary the Murrumbidgee. Smaller areas are served by the Wyangala Dam on the Lachlan, another tributary. None of the other rivers is regulated by large head storages, though weirs and dams have been provided for town supplies, etc., in many places, and head storages have been commenced on the Macquarie, Namoi and Hunter Rivers. Substantial use is made of artesian and sub-artesian water in pastoral areas.

New South Wales legislation provides for the constitution and control of various schemes having different characteristics and including Irrigation Areas, Irrigation Districts, Water Trust Districts, and Flood Control and Irrigation Districts. There are five Irrigation Areas :—The Murrumbidgee Irrigation Areas consisting of 403,256 acres served with water through a channel system off-taking from the river at Berembed Weir ; the Coomealla Irrigation Area of 35,450 acres, served by pumping from the Murray ; the Curlwaa Irrigation Area of 10,243 acres, supplied from the Murray by pumping ; the Hay Irrigation Area of 6,806 acres, supplied with water pumped from the Murrumbidgee ; and the Tullakool Irrigation Area of 16,305 acres supplied from the Edward River at Stevens Weir. All these areas are administered by the Commission, and details of the various schemes are given in sub-section (iii) hereinafter.

(ii) *Works.* The capacities of the main storages (in acre feet) are :—

Murray :—Half share of Hume Dam, weirs and locks to Wentworth (736,420); Stevens Weir, Edward River (7,165).

Murrumbidgee :—Burrinjuck Dam (771,640) ; Berembed Weir (10,000) ; Maude Weir (6,740) ; Redbank Weir (7,360).

Lachlan :—Wyangala Dam (303,900) ; Lake Cargelligo (29,435) ; Jemalong Weir (1,790) ; Lake Brewster (108,000)—works almost complete.

Water from the Hume Dam is used for domestic and stock purposes, to provide bulk supplies for country towns, for the irrigation of vines, fruits and fodder in the Curlwaa and Coomealla areas, for domestic and stock supply and irrigation in the Berriquin, Wakool and Denimein Districts, and for water trusts for domestic and stock purposes and/or irrigation.

The Wyangala Dam is 30 miles upstream from Cowra in the Central West. It has a catchment of 3,200 square miles. Water from the dam, supplemented by the unregulated flow of the Belubula River, provides for domestic and stock purposes along the full length of the river (over 700 miles) and also for irrigation by land holders operating licensed pumps. The towns of Cowra, Forbes, Condobolin, Hillston and Booligal are supplied. A balance storage at Lake Cargelligo conserves water during periods of high flow for release as required. Water from the Lachlan, diverted at Jemalong Weir, supplies the districts of Jemalong and Wyldes Plains, serving an area of 225,196 acres. Wyangala is now producing hydro-electric power. Proposals for future development include provision of a head storage at Belubula River, the construction of a balance storage of 108,000 acre feet at Lake Brewster (now almost complete) and development by licensed diversions.

The approximate total length of channels (including main canals) in New South Wales is 2,630 miles. The approximate length of drains and escape channels is 930 miles, and approximate total length of pipe lines is 10 miles, making a grand total of 3,570 miles of channels and pipe lines, etc.

(iii) *Extent of Systems and Nature of Irrigated Culture.* The following table shows the areas of the various irrigation systems and the areas under irrigated culture in New South Wales during 1950–51, the latter according to the nature of irrigated culture.

AREAS OF SYSTEMS AND OF LAND UNDER IRRIGATED CULTURE : NEW SOUTH WALES, 1950-51.

(Acres.)

System, etc.	Total Area.	Area under Irrigated Culture.										
		Rice.	Other Cereals Grown for Grain.	Lucerne. (*a*)	Other Fodder Crops.	Pastures. Sown. (*b*)	Pastures. Natural.	Vineyards.	Orchards. (*c*)	Vegetables.	Fallow and Miscellaneous.	Total.
Irrigation Areas—												
Murrumbidgee (within the Areas) ..	403,256	22,667	27,946	4,713	2,316	36,153	5,132	5,624	14,045	3,718	31,359	153,673
Lands adjacent supplied under agreement	(*d*)	60	..	..	..	5,120	2,570	..	..	..	60	7,810
Coomealla	35,450	..	..	23	164	..	..	2,476	252	19	..	2,934
Curlwaa	10,243	..	..	37	67	..	54	682	875	11	..	1,726
Hay	6,806	..	..	97	309	1,007	28	..	..	..	20	(*e*) 1,461
Tullakool	16,305	2,256	3,694	20	85	478	..	..	..	..	280	6,813
Total	472,060	24,983	31,640	4,890	2,941	42,758	7,784	8,782	15,172	3,748	31,719	174,417
Irrigation Districts—												
Benerembah ..	111,586	3,267	6,605	1,299	850	16,455	50	..	..	17	1,568	30,111
Tabbita	5,980	83	870	..	12	645	12	..	..	..	..	1,622
Wah Wah	583,111	..	2,220	310	290	3,220	150	..	..	..	300	6,490
Berriquin	654,050	..	7,353	11,445	2,439	86,096	12,167	..	..	188	7,109	126,797
Wakool	486,192	8,890	1,717	918	644	25,735	3,707	..	..	25	2,030	43,666
Jemalong and Wyldes Plains	225,196	..	600	1,047	87	2,065	4,400	..	..	..	395	8,594
Denimein(*f*) ..	156,830	..	422	317	129	1,660	2,207	..	..	10	42	4,787
Gumly	329	..	..	..	..	..	..	..	..	..	..	..
Total .. .	2,223,274	12,240	19,787	15,336	4,451	135,876	22,693	..	..	240	11,444	222,067
Flood Control Districts—												
Lowbidgee	375,000	..	..	..	..	..	(*g*)94,828	..	..	..	..	(*g*)94,828
Medgun	272,800	..	..	..	..	..	(*g*)58,960	..	..	..	..	(*g*)58,960
Total	647,800	..	..	..	..	..	*g* 153,788	..	..	..	..	*g* 153,788
Irrigation Trusts—												
Pomona	1,241	..	..	..	..	..	..	409	125	..	..	534
Blairmore	315	..	..	..	..	..	..	..	..	..	..	(*d*)
Bringan	4,933	..	100	100	..	..	1,035	..	35	2	..	1,272
Bunguny̆ah–Koraleigh	1,804	..	..	..	..	..	..	1,057	64	45	..	1,166
Glenview	661	..	..	180	..	..	178	..	62	7	..	427
Goodnight	1,167	..	..	..	4	..	..	556	40	7	..	607
Bama	3,446	..	..	..	..	..	..	..	..	..	..	(*d*)
Total	13,567	..	100	280	4	..	1,213	2,022	326	61	..	4,006
Water Trusts—Domestic and stock supplies ..	2,945,068	..	..	..	..	..	..	..	..	..	..	..
Licensed Diversions(*h*)— To irrigate	(*d*)	..	..	6,450	3,962	13,605	4,988	888	1,987	11,405	(*i*) 210	43,495
Grand Total(*j*) ..	..	37,223	51,527	26,956	11,358	192,230	*k* 190,464	11,692	17,485	15,454	43,373	*k* 597,773

(*a*) Includes grazing and cutting. (*b*) Perennial and annual self-seeding. Perennial amounted to 10,999 acres of which 6,000 acres were in the Berriquin Irrigation District. (*c*) Citrus and deciduous. Deciduous amounted to 8,131 acres, of which 7,703 acres were in the Murrumbidgee Irrigation Area. (*d*) Not available. (*e*) Includes 408 acres of dry area leases and land outside the Area supplied under special agreement. (*f*) Works incomplete. (*g*) Area irrigable; actual details of area irrigated are not available. (*h*) Excludes domestic and stock supplies for which particulars are not available. (*i*) Tobacco. (*j*) Incomplete. (*k*) Includes Flood Control Districts—*see* (*g*).

3. **Murrumbidgee Irrigation Areas.**—(i) *Description.* These areas comprise about a third of the State's irrigated acreage and in 1950–51 received 277,938 acre feet of the total water allocated for stock, domestic supply and irrigation (821,980 acre feet). They are served by the Burrinjuck Dam (capacity 771,640 acre feet), 40 miles north-west of Canberra, on the Murrumbidgee. The catchment above the dam is 5,000 square miles. The river rises on the high plateau north of Mount Kosciusko where rainfall exceeds 60 inches. Flow for the irrigation districts is supplemented by unregulated flow below the dam from the Tumut River. The dam also provides town supplies for Gundagai, Wagga, Narrandera, Hay, Balranald, and for towns served by the South-West Tablelands scheme.

Domestic and stock water and water for irrigation is supplied for the Irrigation Districts of Tabbita, Benerembah and Wah Wah and the flood irrigation districts of Lowbidgee. Flood flows are relied on to serve the Lowbidgee district and water is not released from the dam for that purpose. For the other undertakings, however, water is stored during the winter and spring freshets, fed by melting snows, and is released during the September-April irrigation season. It passes along the river channel to Berembed Weir, 240 miles westward, where it is diverted to the main canal with an off-take capacity of 1,600 cubic feet per second. The main canal has been completed to beyond Griffith, 96½ miles from the off-take. Reticulation channels aggregate 840 miles and drainage channels 810 miles.

In addition, 380 miles of supply channel run through adjacent irrigation districts in which the water supply is operated and maintained by the Commission, but land transactions are not under its control. The land on which the Murrumbidgee Irrigation Areas are situated originally comprised large sheep stations with a sparse population.

Population was 12,000 in 1923, 15,000 in 1929 and 20,000 at the 1947 Census. The population of the Yanco district (with Leeton as the centre) was then 9,000; and the population of the Mirrool Area (with Griffith at the centre) was 11,000.

(ii) *Administration.* The Water Conservation and Irrigation Commission controls land transactions and water supplies for the Murrumbidgee Irrigation Areas, also the distribution of electricity throughout those areas. Other local government services, including town water supply, are provided by Shire Councils. Land is disposed of by the Commission under freehold or perpetual lease tenure or leased for short terms for grazing or cultivation. The area under occupation at 30th June, 1951 was 342,379 acres, including 42,150 held for short lease grazing, agriculture, etc.

(iii) *Production.* Since the scheme was inaugurated in 1911 the value of total production has aggregated approximately £60,000,000. During the year ended 30th June, 1951, production was valued at £7,820,800.

Live-stock contributed £1,073,300 (comprising sheep, £871,300; cattle, £145,000; pigs, £57,000); wool, £2,028,000; and other products, £106,800.

Rice (£1,560,000), wheat and oats (£666,000) contributed a total of £2,226,000. Horticulture accounted for £1,649,000, comprising almonds, apricots, citrus, drying grapes, table grapes, wine grapes, figs and olives, peaches and nectarines, pears, plums and prunes, quinces and apples. The greatest individual contributions were made by grapes, £433,900, peaches and nectarines, £317,600 and citrus, £375,200.

The total value of all vegetables was £644,200, including root crops, £288,700, tomatoes, £145,700, peas and beans, £129,000, cabbages, cauliflowers, onions and other products. A total of £93,500 represented the value of miscellaneous products.

Rice growing was initiated on the Murrumbidgee Irrigation Areas in 1924. Since then, aggregate production from those areas and from the other localities mentioned hereunder has been approximately 1,022,000 tons, valued at about £13,700,000 to the grower. In 1950–51 total area sown was about 37,000 acres, including 26,000 acres on the Murrumbidgee Irrigation Areas and adjoining districts, 8,890 acres at Wakool and 2,256 acres at Tullakool. The total quantity of water delivered for the rice crops during the 1950–51 season was 215,616 acre feet. Water supplied for rice represents about two-thirds of the total delivered in the areas and a quarter of the water artificially supplied for irrigation in New South Wales. Before the war the rice crop was more than sufficient for Australian requirements. During and after the war the area planted was increased to the limit of water available. Rice has also been grown in the adjoining districts of Benerembah and Tabbita and in each of the years 1944, 1945 and 1946 some 4,000-odd acres were sown by the Water Conservation and Irrigation Commission at Wakool as a war-time project. Approval has been given for some rice to be grown by individual landholders within the Wakool Irrigation District during and since the 1948–49 season: this arrangement, however, is of a temporary nature only. On Tullakool Irrigation Area rice growing is expected to become a regular feature of primary development; 2,256 acres were sown during the 1950–51 season.

Co-operation is a prominent feature in the Murrumbidgee Areas. Co-operative organizations in the Mirrool section handle 300,000 bushels of fruit per year (compared with 54,600 in 1927–28. Sales turnover of the Leeton cannery in each of the past five years was over £1,000,000. Settlers and government agencies co-operate extensively in all matters relating to irrigation practice.

4. **Other Irrigation Areas.**—The Curlwaa, Coomealla, Hay and Tullakool Irrigation Areas follow the same administrative pattern as the Murrumbidgee Areas—that is, land transactions are administered by the Water Conservation and Irrigation Commission which also is responsible for operation and maintenance of works to supply water at rates determined by the Commission.

Curlwaa Area, on the Murray near Wentworth, consists of 10,243 acres of which 2,327 acres at 30th June, 1951, comprised irrigated holdings. Production consists of dried vine fruits, deciduous fruits and fodder crops of a total estimated value, in 1950–51, of £198,546.

Coomealla Area, 9 miles upstream from Curlwaa, comprises 35,450 acres of which 3,001 acres at 30th June, 1951 comprised irrigated holdings. Other land in the undeveloped part is leased for grazing. Production consists of vines and citrus of an estimated value, in 1950–51, of £335,583. Works are now under construction to provide 100 horticulture farms for ex-servicemen, 33 of whom were in occupation of their new holdings towards the end of 1951.

Hay Area, on the lower Murrumbidgee, consists of 6,806 acres, of which 1,114 acres are occupied as irrigated holdings. Annual production, valued in 1950–51 at £26,710, comprises dairy products, fat lambs, sheep, wool and fodders.

5. **Irrigation Districts.**—These Districts are set up under the Water Act for (*a*) domestic and stock water supply and (*b*) irrigation. They differ from water trusts as the cost of the works is not required to be repaid over a period, but annual charges are made by the State for water supplied to landholders. The following are the districts or provisional districts constituted and the areas of land benefited:—*Murray River*—Wakool District (completed) 486,192 acres, Berriquin Provisional District (almost complete) 654,050 acres, Deniboota Provisional District (in progress) 303,064 acres, Denimein Provisional District (in progress) 156,830 acres, Jernargo Provisional District (now to be included within the Berriquin District) 130,850 acres, Barramein Provisional District (domestic and stock supply only—works not yet commenced) 88,651 acres; *Murrumbidgee River* (completed)—Benerembah District 111,586 acres, Tabbita District 5,980 acres, Wah Wah Provisional District 583,111 acres, Gumly Provisional District 329 acres; *Lachlan River* (completed)—Jemalong and Wyldes Plains District 225,196 acres.

Since the completion of the Hume Dam several such districts have been established along the Murray to utilize the New South Wales share of the storage. Water is not available for the whole of the 5,000,000 acres adjacent to the Murray in New South Wales, and therefore the schemes are based on "extensive" irrigation—that is, water rights are allotted to holdings on the basis that only a portion of each holding (one acre in ten or twelve, etc.) will be irrigated, but additional water, when available, may be obtained by landholders. "Water right" means right to such a quantity annually of water, 12 inches deep, as will cover an area of one acre.

Water to serve Berriquin and Wakool Districts is diverted through a main canal which will be 100 miles long when completed. At 30th June, 1951, the total length of completed canal and channels was 774.4 miles, including Mulwala Canal 75.4 miles, Berrigan channel 22.2 miles, subsidiary channels 635.4 miles, escape channels 32.5 miles and cross drainage channels 8.9 miles. Off-take capacity of the Mulwala Canal is 5,000 acre feet per day. Ultimately the water will serve Deniboota and other districts for which works have yet to be completed.

Wakool, with 361 miles of channel, contains 226 holdings and it is expected that the area developed by irrigation will comprise about one acre in 13 of the total area. The total area irrigated in 1950–51 was 43,666 acres and water supplied was 91,509 acre feet. Crops comprised fodders, pastures, rice, cereals and vegetables, but sheep raising is the main industry.

Considerable subdivision has occurred within the Berriquin District and it is expected that the proportion of total area to be developed for irrigation will be considerably higher than in the case of Wakool. Total irrigated acreage was 126.797 at the 30th June, 1951. Sheep and wheat growing are main industries. The fat lamb industry is well developed and expanding. Dairying is making headway, and a butter factory has been established at Finley.

In the Benerembah, Tabbita and Wah Wah Districts, supplied from the channels of the Murrumbidgee Irrigation Areas, the quantity of water supplied during the 1950–51 season for irrigation, etc. was 63,438 acre feet, and the area irrigated was 38,223 acres, including rice and other cereals, pastures and fodder crops. The estimated value of production, included in the amount (viz., £7,820,800) for the Murrumbidgee Irrigation Area, was £1,104,300 including wool, live-stock, wheat and oats and rice.

For the same season 7,665 acre feet of water was supplied from the Lachlan River to irrigate a total area of 8,594 acres within the Jemalong and Wyldes Plains Districts. The total estimated value of production was £2,000,000 including wool and lambs £1,800,000, calves £68,000, wheat, £70,000 and lucerne, £29,000.

6. **Water Trust Districts, Irrigation Trusts and Flood Control and Irrigation Districts.**—The Water Act provides for the constitution of Trust Districts for domestic and stock water and irrigation and empowers the Commission to construct, acquire or utilize necessary works. When the works are completed they are handed over to trustees to administer. The trustees are elected by the occupiers of the land and act with a representative of the Commission. They are empowered to levy and collect rates covering the cost of the works repayable to the Crown by instalments and also the cost of operation and maintenance of the works. The rates are struck according to the area of land which benefits. The following water trusts—other than irrigation—have been constituted; the area in acres of each district is shown in parenthesis :—*Murray River*—Tuppal Creek (78,080), Bullatele Creek (68,320), Little Merran Creek (157,440), Poon Boon (32,985), Minnie Bend Flood Prevention (2,190); *Murrumbidgee River*—Yanko, Colombo and Billabong Creeks (1,001,210); *Lachlan River*—Torriganny, Muggabah and Merrimajeel Creeks (170,240), Condobolin West Weir (4,480), Marrowie Creek (295,040), Ulonga (71,655), Micabil Weir (11,500); *Miscellaneous*—Algudgerie Creek (9,760), Nidgery Weir (46,880). Great Anabranch of Darling River (995,200), Collarenebri town water supply (88)—making in all a total area of 2,945,068 acres. Thirteen of these trusts have been formed for the provision of water for domestic and stock purposes, one for a town supply and one for flood prevention.

Irrigation Trusts are established under the same Act and are administered by trustees in a similar way. The following are the Trust Districts (area in acres is shown in parenthesis) :—*Hunter River*—Blairmore (315); *Murray River*—Bama (3,446), Goodnight (1,167), Bungunyah–Koraleigh (1,804), Glenview (661), Bringan (4,933); *Darling River*—Pomona (1,241)—making in all a total area of 13,567 acres.

The Lowbidgee Provisional Flood Control and Irrigation District (375,000 acres) was constituted in 1945, being the first of its kind. Its purpose is to provide flood irrigation for pasture lands on the lower Murrumbidgee by water diverted from the Maude and Redbank Weirs. There are 44 holdings. Another district (Medgun near Moree in the North-West) is in operation. Its total area is 272,800 acres, and a levee is being constructed to extend flood irrigation to an area larger than that commanded by the original works.

7. **River and Lake, and Farm Water Supplies.**—During recent years the numbers of licences and permits issued to individuals to draw water from rivers and lakes for irrigation has increased substantially, especially along the coastal streams in sub-humid districts where the value of supplementary irrigation is becoming more recognized as a means of stabilizing production in lean months. There has also been a considerable increase along the Murrumbidgee and Lachlan.

The Farm Water Supplies Act was passed in 1946. Technical advice and assistance, and financial assistance are made available to aid individual farmers and groups of farmers to provide and improve water supplies for domestic, stock and irrigation purposes by means of wells, bores, excavated tanks, weirs or dams.

8. **Underground Water.**—Extensive use is made of artesian, sub-artesian, and shallow underground water. Eighty thousand square miles in the north and western portions are covered by the Great Artesian Basin. Eighty-one Bore Water Trusts and

twelve Artesian Wells Districts have been constituted. The Bore Trusts are administered in the same way as Water Trusts, but in Artesian Wells Districts settlers maintain the drains. Bore Trusts and Artesian Districts cover about 5,000,000 acres and water is distributed through 3,378 miles of open earth drains. The number of artesian bores giving a flowing or pumping supply at 30th June, 1951 was 946 and the estimated total daily flow from 538 flowing bores was 62,156,177 gallons. The estimated flow in 1914-15 was 99,350,000 gallons per day for 372 bores. The deepest bore is Boronga No. 2 (4,570 feet), which also has the greatest flow, namely, 1,115,360 gallons per day. Of the total number of bores sunk, 222 have been installed by the Government in connexion with public watering places, Bore Water Trusts or Artesian Wells Districts.

Since 1912 the Government has assisted settlers in shallow boring operations for which repayments are required over a period. To 30th June, 1951, the total constructed by the Commission's plants was 4,203 and their average depth was 297 feet.

9. **Future Programme.**—The programme of post-war development already in hand includes the provision of eighteen dams and storages, eight diversion weirs and flood mitigation and river protection works in various parts of the State. Construction has been commenced on head storages at Keepit on the Namoi, Glenbawn on the Hunter and Burrendong on the Macquarie, while legislation has been passed authorizing the construction of a flood control dam at Warkworth in the Hunter Valley and a conserving dam at Blowering on the Tumut River. The Menindee Lakes storage project—part of the scheme for conserving the waters of the Darling River—is well advanced. A balance storage at Lake Brewster on the Lachlan River is almost complete and is in operation. The Hunter River development concerns an exceptionally fertile coastal valley, forming the hinterland to Newcastle, where the annual rainfall is not heavy and variations from month to month are considerable. This is the first coastal scheme initiated in New South Wales. Total estimated capacity of all proposed new storages is 5,500,000 acre feet.

10. **Hydro-electricity.***—The largest hydro-electric installation in New South Wales is that located at Burrinjuck Dam on the Murrumbidgee River. It consists of two power stations aggregating 25,800 kW., the first of which commenced operation in 1929. High tension transmission lines connect these plants with the major inter-connected system of New South Wales at Goulburn and Canberra. The output of the plant is dependent on the release of waters for irrigation purposes.

The Nymboida hydro-electric scheme was opened in 1924 with an initial capacity of 800 kW. to supply Grafton, South Grafton and Ulmarra over a transmission line of 31 miles. The Nymboida power station is situated on a tributary of the Clarence River in northern New South Wales and now has a capacity of 5,600 kW. The station now operates in conjunction with a diesel station at Lismore and an associated transmission network to provide supply throughout the north-eastern area from Kyogle in the north to Kempsey in the south, a distance of some 200 miles north and south. In 1946 the system was interconnected with the Department of Railways system based on Newcastle. The Nymboida system is controlled by the Clarence River County Council.

The Bega Valley scheme was opened in 1944 to supply an area of 2,700 square miles extending from Bermagui to Eden. The power is derived from the waters of Rutherford Creek, a tributary of the Bemboka River, and the capacity of the present installation is 500 kW. Two 750 kW. generating units are to be installed in conjunction with a further development on George's Creek, another tributary of the same river, and a comprehensive programme of rural electrification has been initiated. This system is controlled by the Bega Valley County Council.

Wyangala Dam power station was brought into operation in 1947. This station, with an installed capacity of 7,200 kW., utilizes the irrigation waters released from the dam to generate electricity, and in addition is designed to provide an essential stabilizing feature in the transmission system between Burrinjuck and Lithgow, to which the station is inter-connected. The output of the station at any time is dependent on the release of water for irrigation purposes.

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* *See also* Chapter XXV.—Electric Power Generation and Distribution, pp. 1160–1 and 1164.

Major projects which are being investigated by the New South Wales Government include the hydro-electric development of the Clarence River at the Gorge and other locations, the hydro-electric development of the Shoalhaven River and the hydro-electric development of the Styx River, a tributary of the Macleay River.

The Clarence Gorge scheme, situated 140 miles from Brisbane and 240 miles from Newcastle, embraces not only hydro-electric development, but also may offer considerable benefits by reason of the flood mitigation effects of a large dam built at this location. Investigations have shown that a dam 245 feet high would impound 4,500,000 acre feet of water and would enable the production of more than 100,000 kW. of power. It is expected that eventually some 400,000 kW. of power might be obtained from the Clarence River and its tributaries.

The Commonwealth and States agreed in 1945 on hydro-electric development at the Hume Dam on the Murray River near Albury. Plans are already well advanced for the installation at this site of two 25,000 kW. water turbines and generators.

Investigations are also taking place into the possibilities of developing hydro-electric power in association with the Warragamba Dam which is being built for water supply purposes for the Sydney metropolitan area, at Keepit Dam which is being constructed for irrigation purposes on the Namoi River near Gunnedah, and at the Burrendong Dam which is to be constructed for irrigation purposes on the Macquarie River near Dubbo.

§ 3. Victoria.

1. **General.**—(i) *Rainfall.* Particulars of the rainfall pattern of Victoria were given on page 1117 of Official Year Book No. 37, and Chapter II.—Physiography, of this issue, contains information on climatic conditions in each State.

(ii) *Administration.* Although practical steps were taken to organize Victoria's water resources before the turn of the century, the passage of the Water Act in 1905 marked the commencement of sustained progress. The State Rivers and Water Supply Commission established by this Act is vested with the control of all irrigation, rural domestic and stock supplies, town water supplies and flood protection and drainage undertakings outside the Metropolitan area, with the exception of the irrigation area operated by the First Mildura Irrigation Trust and the town water supplies operated by locally constituted Waterworks Trusts or Local Governing Bodies.

The operations of the First Mildura Irrigation Trust and the various Waterworks Trusts and Local Governing Bodies, as well as the various Sewerage Authorities which control sewerage undertakings in country towns, are also subject to general supervision by the Commission.

2. **Systems Summarized.**—(i) *Works.* Since 1902, when a great drought emphasized the need for a concerted attack on water problems, the total capacity of water storages has increased from 172,000 to 1,975,780 acre feet (including Victoria's share of the Hume Dam). By means of channels, bores, etc. one-fourth of the State is artificially supplied for stock and domestic purposes. Large areas, which would be largely unproductive without water, are now contributing to the State's wealth. The area actually irrigated has increased from 110,000 acres in 1906 to 716,051 in 1950–51, and irrigation channels command 2,086,565 acres.

The Commission controls 35 large reservoirs and 238 subsidiary storages. The capacities of the storages in acre feet within the various systems at 30th June, 1951 were as follows :—

> *Goulburn System* :—Eildon Reservoir 306,000 ; Goulburn Weir, 20,700 ; Waranga Basin, 333,400 ; *Murray–Loddon System* :—Half share of River Murray Commission storages including Hume, Yarrawonga, Torrumbarry, Euston, Mildura and Wentworth, 736,420 ; Kow Swamp, Laanecoorie, Kerang-North-West Lakes, Lake Boga and Lake Cullulleraine, 148,210 ; total 884,630 ; *Wimmera–Mallee* :—206,860 ; *Maffra–Sale* :—106,040 ; *Coliban*:—62,730 ; *Werribee*:—34,900 ; *Bellarine Peninsula* :—10,850 ; *Mornington Peninsula* :—5,800 ; *Otway* :—1,080 ; *Miscellaneous* :—2,790 ; *Total* :—1,975,780.

Irrigation channels extend 4,708 miles, domestic and stock channels, 8,514 miles and drainage and flood protection channels, 2,083 miles, a total of 15,305 miles. In addition, the Commission controls 1,180 miles of piping, comprising 260 miles of mains and 920 miles of reticulation. Farm holdings served with water total 40,948. Urban districts supplied by the Commission's channels and pipelines have a population of 152,320 persons in 130 towns, and a further 136 towns with a total population of 333,980 persons are supplied by Trusts under the supervision of the Commission.

To 30th June, 1951, the total capital expenditure on irrigation, rural water supply, country town water supply, and flood protection and drainage works amounted to £47,815,000, one-half of which was in respect of irrigation.

The total capital liability in respect of works under the control of the Commission at 30th June, 1951 was £40,534,000, of which £37,817,000 was borne by the State and £2,717,000 by water-users. Waterworks Trusts and local governing bodies had a total capital liability of £5,592,000 at 30th June, 1951, of which £2,676,000 was borne by the State and £2,916,000 by the Authorities.

(ii) *Extent of Systems and Nature of Irrigated Culture.* Although the area irrigated is less than 2 per cent. of the State, it yields approximately 11 per cent. of Victoria's rural production. The following table shows the areas of the various irrigation districts and the areas under irrigated culture during 1950–51 :—

AREAS OF SYSTEMS AND OF LAND UNDER IRRIGATED CULTURE : VICTORIA, 1950–51.

(Acres.)

System.	Total Area.	Area under Irrigated Culture.									
		Cereals.	Lucerne.	Other Fodder Crops.	Pastures.		Vineyards.	Orchards.	Market Gardens.	Fallow and Miscellaneous.	Total.
					Sown.	Natural.					
Goulburn	1,256,416	9,496	26,930	2,220	238,904	38,027	268	19,242	4,188	4,628	343,903
Murray—											
Torrumbarry Weir ..	378,420	8,442	7,520	1,271	112,076	53,204	4,727	2,011	1,722	4,480	195,453
Yarrawonga Weir .	267,344	692	10,352	230	22,900	4,700	40	2,756	418	224	42,312
By Pumping ..	49,871	69	259	236	256	124	22,682	1,335	302	30	25,293
Total .. .	695,635	9,203	18,131	1,737	135,232	58,028	27,449	6,102	2,442	4,734	263,058
Loddon and other Northern Systems ..	(a) 19,725	524	1,379	105	3,426	1,842	30	4,326	1,533	2,604	15,769
Southern Systems ..	70,789	22	1,718	205	23,817	834	..	490	4,564	751	32,401
Mildura and Private Diversions	(b) 44,000	6,019	6,314	830	18,971	3,107	14,835	5,045	3,184	2,615	60,920
Grand Total ..	2,086,565	25,264	54,472	5,097	420,350	101,838	42,582	35,205	15,911	15,332	716,051

(a) Area of Campaspe District only. (b) Area of First Mildura Trust District only.

(iii) *Production.* The influence of irrigation on Victorian production is illustrated by the following estimates, prepared by the Commission, of the value of production from irrigated areas :—1905–6, £500,000 ; 1925–26, £5,000,000 ; 1948–49, £17,900,000 ; 1949–50, £22,500,000. Detailed classification of the 1949–50 irrigation production estimates is as follows :—Live-stock—Dairying, £4,700,000 ; Beef and veal meats, etc., £1,140,000 ; Wool, lamb and mutton, £4,300,000 ; Pigmeats, £1,150,000 ; Poultry and eggs, £1,200,000 ; total Live-stock, £12,490,000. Horticulture—Vine fruits, £3,840,000 ; Citrus fruits, £640,000 ; Other fruits, £1,580,000 ; total Horticulture, £6,060,000. Vegetables and other primary products, £3,950,000.

3. **Goulburn System.**—The Eildon and Waranga Reservoirs, on the Goulburn River, supply half the irrigated acreage, and form the largest system in Victoria. Annual rainfall in the valley is only 18 inches and the annual discharge has varied from 567,000 acre feet in a drought year to 6,202,171 acre feet in a particularly wet season. Total regulated supply is 960,100 acre feet which will be practically doubled on completion of the Eildon Reservoir Enlargement programme.

Water from Eildon Reservoir flows down the Goulburn for 150 miles to the Goulburn Weir, which raises the summer level of the river about 45 feet to 408 feet above sea level, where water is diverted to two main channels. The eastern main channel conveys water to four irrigation districts surrounding Shepparton and the western main channel fills Waranga Basin in addition to supplying the eastern portion of the Rodney Irrigation District.

Two main outlet channels issue from the Waranga Reservoir, one serving the Western part of the Rodney district; while the other serves districts as far west as Boort, and continuing to Beulah East, about 230 miles by channel from Waranga Basin or some 400 miles from Eildon, supplements the Wimmera-Mallee system.

Districts served comprise 202,400 acres east of the Goulburn; 608,350 acres between the Goulburn and Campaspe; 445,100 acres between the Campaspe and Loddon Rivers; and 79,900 acres west of the Loddon—a total of 1,335,750 acres. Main channels of the system have a total length of 213 miles and in addition there are 2,344 miles of distributaries, a total of 2,557 miles for the whole system.

The development of the fruit-canning industries in the Goulburn Valley is an index of the results of irrigation policy. Annual production from the Shepparton, Kyabram and Mooroopna canneries, together with that of city canneries—from Goulburn Valley fruit—amounts to an aggregate which represents 70 per cent. of Australia's total production of canned peaches, pears and apricots. Other main products of the Goulburn districts are fat lambs, fodders, wine and table grapes and dairy products.

4. **Murray River System.**—The waters of the River Murray are used to supply an area of more than 500,000 acres between Yarrawonga and Merbein, and channels totalling 1,450 miles are in service. The districts between Yarrawonga and Swan Hill, excepting Tresco, are supplied by gravitation and those down the river (Red Cliffs, Merbein, Nyah and Mildura) are supplied by pumping.

The Murray Valley Irrigation District, supplied from Yarrawonga, will serve 280,000 acres when completed. At 30th June, 1950, 450 miles of main and distributary channels were completed and supplied 190,000 acres west of Yarrawonga.

The gravitation system based on Torrumbarry Weir (52 miles downstream from Echuca) serves an area of 415,500 acres with 846 miles of supply channels. The weir raises the level of the river some 16 feet and enables water to be diverted throughout the year.

Red Cliffs Irrigation District comprises 31,000 acres. At present 12,000 acres are irrigated. This ranks first in importance among Victoria's pumping schemes. A system of main and distributary channels commands every holding in the district. The district, originally for soldier settlement, has been subdivided into 700 blocks. The area planted is composed mainly of vines and citrus. The first harvest (1924) returned 570 tons of dried fruit in addition to table grapes. The average harvest is now 18,000 tons of raisins, currants and sultanas as well as large quantities of grapes for dessert and distillation.

Merbein Irrigation District comprises 10,520 acres and contains 436 holdings averaging 24 acres each. A reticulated pipe system supplies the town of Merbein, and the pumps also supply the Yelta Waterworks District of 51,200 acres.

Nyah Irrigation District is supplied with water diverted from the Murray by a high-lift pumping plant, serving 3,840 acres in 220 holdings devoted mainly to orchards and vineyards.

5. **First Mildura Trust District.**—The First Mildura Irrigation Trust—which is the only Irrigation Trust operating in Victoria—controls an area of 44,000 acres, of which 13,000 acres are irrigated. This area irrigated includes 12,000 acres of vines, 900 acres of citrus trees and small areas of apricots, peaches, prunes, figs, almonds, olives, lucerne and other fodders. It produces approximately 15,000 tons of raisins, currants and sultanas each year. The irrigation water is pumped from the River Murray and distributed through 168 miles of channels.

6. **Wimmera-Mallee System.**—The Wimmera-Mallee scheme is regarded as the most extensive domestic and stock supply system in the world. The main supply is drawn from the Grampians storages with a capacity of 206,860 acre feet. Supplementary water is drawn from the Goulburn channels and the Loddon River. The system serves an area of 11,000 square miles or nearly one-eighth of the State, which is largely devoted to wheat and pastoral industries. Without the artificial supply of water, development would be meagre.

Once a year, in the winter or spring, a volume of 75,000 acre feet of water is distributed through 6,600 miles of open channel and some 3,000 miles of farm channels. It is the responsibility of farmers to provide storages sufficient in size to meet their stock and domestic requirements for the ensuing year. At least 16,000 tanks are served. In addition, forty-five towns with a total population of 40,000 obtain their water from the system. A total population of 80,000 depends upon the scheme. In the vicinity of Horsham and Murtoa, near the main storages, 3,000 acres are irrigated for soft fruits and pastures, but the limited water resources at present available will not permit any extension of irrigation.

The northern part of the system is affected by sand drifting into the channels, particularly in years of dry weather conditions, and the Commission is involved in substantial annual expenditures to remove this sand drift before the annual water distribution can be made. It is considered that this expenditure could be reduced by better farming methods, and efforts in this direction such as the sowing of rye-corn. and including the use of compulsory powers to prohibit the fallowing of land or burning of stubble within three chains of channels in light sandy country, have resulted in marked savings in maintenance costs.

7. **Farm Water Supplies.**—The Rural Finance Corporation Act 1949 is designed, *inter alia*, to give farmers an opportunity of establishing or improving domestic and stock water supplies on their farms. Water may be obtained from underground sources, from catchment and gully dams by diversion from existing streams and channels, by storage of sufficient water to meet a year's requirements and by installation of windmills or hydraulic rams.

A Farm Water Supplies Branch has been set up by the State Rivers and Water Supply Commission to advise farmers on farm water supply matters even if finance is not required. Comprehensive booklets entitled "Farm Water Supplies for Domestic and Stock Purposes" and "Farm Irrigation and Drainage" prepared by this Branch have been widely circulated to landholders.

8. **Underground Resources.**—A comprehensive survey of the underground water resources of Victoria has been commenced. It will compile records of bores in the Mallee, Wimmera and Glenelg regions, and provide a detailed description of the Murray Artesian Basin. Investigations have also been made into the underground water resources of local areas such as Orbost Flats, Llowalong Estate on the Avon River and at Bacchus Marsh where a number of observation bores have been installed.

The Murray Artesian Basin underlies an area of 107,250 square miles, of which 26,808 square miles are in Victoria, 28,269 square miles in South Australia and 52,173 square miles in New South Wales. The quality of the water varies in different parts of the basin. Over 300 bores exist in Victoria, with an average daily flow of 3,000,000 gallons. Bores range in depth from 50 to 3,000 feet.

9. **Future Programme.**—Victoria has now reached the stage when the demand for water is far greater than the supply, and a programme which envisages an expenditure of £25,000,000 has been launched. This includes the Rocklands storage on the Glenelg River (272,000 acre feet) and the Cairn-Curran Reservoir on the Loddon (120,000 acre feet). Work has been commenced on the enlargement of the Eildon Reservoir on the Goulburn from 306,000 to 2,750,000 acre feet by the building of a large earthen embankment 260 feet high and 3,300 feet long at an estimated cost of £12,000,000. This would be Australia's greatest storage.

10. **Hydro-electricity.***—The Kiewa project in the Australian Alps is one of the largest hydro-electric developments in Australia. The authority responsible for its construction and operation is the State Electricity Commission of Victoria. The Kiewa River is a tributary of the Murray. The Victorian State Parliament in July, 1948, authorized the enlarged Kiewa project comprising a series of power stations with a total installed capacity of 289,000 kW. and an average output over wet and dry years of 1,000 million kWh. of electricity per annum.

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* *See also* Chapter XXV.—Electric Power Generation and Distribution, pp. 1168 and 1180.

Work is now in progress on this major undertaking of the State Electricity Commission. Electricity will be transmitted over a 220,000 volt power line 152 miles long to terminal stations in Melbourne for distribution throughout the Commission's supply network.

The first of the Kiewa power stations has been operating since 1944. Its installed capacity is 26,000 kW. and it is contributing annually between 40 and 50 million kWh. of electricity to the State system. The remaining power stations to be built will come into operation as and when they are completed.

The Kiewa hydro-electric undertaking is one of the principal developments in the State Electricity Commission's present construction programme. It will be complementary to the Commission's brown coal burning power station at Yallourn, which at present generates approximately 43 per cent. of all the electricity produced in Victoria and is now being extended to double, and later treble, its present capacity and output.

Further utilization is to be made by the State Electricity Commission of irrigation waters from the Goulburn River by the erection of a very much larger power station of 120,000 kW. capacity, which will operate on the increased flow of water from the new Eildon Reservoir now being constructed by the State Rivers and Water Supply Commission of Victoria (*see* above). Orders have been placed for the two 60,000 kW. generators which are to be installed.

Irrigation waters from the existing Eildon Reservoir are already utilized to operate the 13,500 kW. Sugarloaf power station, which is the largest power station in the State Electricity Commission's Sugarloaf-Rubicon group of five hydro-electric power stations. With a total installed capacity of 26,400 kW., this group has been in operation since 1928, and at present contributes on the average between 130 and 150 million kWh. of electricity per annum to the State system. Power is generated at Sugarloaf during the summer months when water is being released for irrigation, and at other times of the year when storage is full. The four associated mountain stream stations on the Rubicon and Royston Rivers generate maximum power in the winter and spring, when water flow is at its greatest.

Irrigation water will also be utilized at the Hume Weir where a new power station will serve both Victoria and New South Wales. It is being erected by the New South Wales Public Works Department to designs and specifications prepared by the State Electricity Commission of Victoria. Initially, the installed capacity of the power station will be 50,000 kW. Output of electricity, averaging about 200 million kWh a year, will be shared equally by the two States, each contributing its quota of the annual cost. Victoria's share of the electricity generated will be fed into the State system.

§ 4. Queensland.

1. **General.**—(i) *Rainfall.* Particulars of the rainfall pattern of Queensland were given in Official Year Book No. 37, page 1122, and Chapter II.—Physiography, of this issue, contains information on climatic conditions in each State.

(ii) *Administration.* The first comprehensive Water Act in Queensland was the Water Act of 1926 which vested in the Crown the right to the use and flow of all streams, lakes, watercourses, etc., which flowed through or were within the boundaries of two or more occupiers, and also vested in the Commissioner of Irrigation and Water Supply the bed and banks of all boundary streams. The Irrigation Act of 1922 provided for the establishment of Irrigation Areas in approved localities. From 1922 to 1931 the Commissioner of Irrigation and Water Supply administered the Acts, but in 1931 the Land Administration Board was appointed to act as the Commissioner and continued to act until the Irrigation and Water Supply Commission Act of 1946 was proclaimed in 1947. Under this Act the Corporation of the Commissioner of Irrigation and Water Supply was reconstituted. The Commissioner is responsible for carrying out the provisions of the Irrigation Acts 1922 to 1949 and the Water Acts 1926 to 1942. He is also responsible for investigations into, and the planned development of, water resources of Queensland under the Land and Water Resources Development Acts 1943 to 1946. For particulars of the New South Wales–Queensland Border Rivers Agreement ratified by Acts of both States in 1947 *see* page 1210.

(iii) *Water Utilization in Queensland.* Queensland's predominant interest in the past in the field of water conservation has been the provision of stock and domestic water supplies in its great pastoral areas which contain nearly half the Commonwealth's cattle, a seventh of the sheep and a third of the horses. More than half the State's rural production is derived from cattle and sheep. The cattle are distributed throughout the State, but most thickly between the east coast and the 20-inch average annual isohyet. Sheep are mainly pastured on the inland areas west of this isohyet, whilst dairying is concentrated in the south-eastern quarter of the State. In addition to the stabilization of water supplies in the pastoral areas and the provision of water along stock routes for travelling stock, the development of irrigated pastures on the eastern seaboard for fattening stock adjacent to meatworks and markets has lately received much attention.

The State's agricultural crops differ from those of other States in that a large proportion is tropical. Sugarcane is the greatest individual crop, representing in value some 40 per cent. of total agricultural production. Approximately 12 per cent. of the sugarcane acreage is irrigated and represents some 54 per cent. of the total irrigated area in Queensland. Queensland is Australia's major tobacco-producing State, and plans are in hand to increase annual production of this crop greatly by means of development under irrigation.

2. **Great Artesian Basin.**—(i) *General.* Western Queensland beyond the 22 inch rainfall belt is predominantly pastoral and is mainly dependent for water supplies on artesian and sub-artesian bores, and where surface storage is not readily available, on excavated tanks. The Great Artesian Basin in Queensland corresponds approximately with the area lying west and south of the Great Dividing Range, but excluding the Cloncurry Mineral Field and the Barkly Tableland. It comprises 350,000 square miles of the total State area of 670,500 square miles. Statistics of bores and flow as at 31st December, 1950, are :—Artesian bores drilled, 2,205 ; artesian bores still flowing, 1,400 ; total depth drilled, 3,249,597 feet ; deepest bore, 7,009 feet ; total estimated flow, 217,575,000 gallons per day. Artesian pressure and flow are both steadily diminishing despite new bores drilled. The rate of diminution varies widely throughout the basin. Present general average rates of diminution are :—pressure, 1–2 feet/head, total flow 1½–2 per cent. per annum.

There are some 19,000 miles of bore drains and the greatest length served by one bore is 121 miles. This method of watering is somewhat wasteful, owing to evaporation and soakage, but it is the most economical in first cost. Not more than 5 per cent. of the water is actually used by stock, and present policy is to restrict working flows to serve limited drain systems of smaller dimensions and reduce evaporation and soakage losses. The average loss per mile of drain is 10,000 gallons per day ; with smaller drains this is reduced to 7,000 gallons per day. Pipe lines are very rarely used for distribution owing to high initial cost.

Although artesian beds underlie such a large area of the State, only 87,500 square miles are primarily watered by bore drains. The remaining area is watered by artesian bores (with small or no flow and limited drains), sub-artesian bores, excavated tanks, dams and natural waterholes. In many districts, artesian bores are not economical watering facilities, because of depth, limited area to be watered, and difficult terrain, for distribution of water by drains. High costs have restricted deep drilling. Very few new bores exceed 2,000 feet in depth, and a new bore greater than 3,000 feet in depth is exceptional.

Shallow sub-artesian supplies, of variable quality and volume, are available at depths less than 1,000 feet over a large area of the basin. These beds are not connected with the artesian beds. An essential practical consideration is that the main artesian beds are continuous and the sub-artesian beds are not continuous.

In 1939, a special Committee was appointed to inquire into the geology and hydrology of the Basin and economic use of artesian supplies. A first progress report has been issued by this Committee and its final report is now being prepared. It has been established that the rate of diminution of flow is declining.

In the past, many excavated tanks failed in dry seasons, because of insufficient original depth and capacity, and subsequent silting. Mechanical plant is now almost exclusively in use and much larger tanks are being excavated, even in areas where artesian water may be obtained at a reasonable depth. New tanks with capacities of 20,000 cubic yards and depths of 25 feet are not uncommon. Two tanks with capacities of 65,000 cubic yards each, and depths of 42 feet and 40 feet have recently been completed for watering stock in an area where a good artesian flow may be obtained at a depth less than 2,000 feet.

(ii) *Bore Water Areas.* The Constitution of Bore Water Areas was inaugurated in 1913 to aid pastoral settlement in districts where large flows were available at cost beyond individual capacity and to conserve artesian supplies by fully utilizing the flows from existing bores resumed with the land for closer settlement. Bores and drains are constructed from loan funds repayable over a period of years. The areas are administered by Local Boards or by the Commissioner of Irrigation and Water Supply, acting as a Board. Rates are levied to meet interest, redemption, maintenance and administration costs. Statistics for the year 1950–51 are :—Areas constituted, 65 ; administered by Commissioner, 53 ; administered by Local Boards, 12 ; area benefited, 4,995,931 acres ; average rate per acre, 1.12d ; number of flowing bores, 59 ; total flow, 28,441,000 gallons per day ; drains served, 2,881 miles.

3. **Stock Route Watering.**—During 1935, a scheme was inaugurated to water adequately stock routes in the western portion of the State including main trunk routes connecting Eromanga to Burketown, Charleville to Normanton, and Clermont to Einasleigh, with branches to railheads, a total distance of 3,117 miles. Watering facilities were also provided on subsidiary routes. Under the Stock Routes and Rural Lands Protection Act of 1944 a co-ordinating board was constituted, representative of Government departments and pastoral interests, under the direction of the Minister for Lands, and with an officer of that Department as superintendent, whose duty was, *inter alia*, to investigate and implement a long-range, co-ordinated plan for adequate watering of all stock routes throughout the State. Natural waters are being supplemented by artificial facilities at intervals of about 9 miles. Construction is supervised by the Irrigation and Water Supply Commission and by local authorities. Completed facilities are vested in local authorities for control and maintenance. From 1935 to 30th June, 1951, 228 facilities had been completed and at 30th June, 1951, 240 facilities were under construction or investigation.

4. **Irrigation.**—(i) *General.* Irrigation as a means of stabilizing and increasing agricultural production is receiving growing attention in Queensland. However, with the exception of the Theodore Irrigation Area, orthodox projects served by a channel system have not so far been developed, though construction of the Clare Irrigation Area on the Burdekin River is well advanced and investigations of several schemes are being carried out. Because of the large variations in both monthly and annual river flows, major developments cannot be undertaken until large storage works are provided. Most irrigation in Queensland is performed by private farmers operating under licence, and obtaining water by pumping from streams or from natural underground storages. Where available, electricity is the most popular source of power for pumping ; the principal areas supplied with electricity comprise the Burdekin Delta and the Lockyer Valley.

Furrow irrigation is used for cotton, sugar cane, and most tobacco and some other crops. Spray irrigation is adopted to a considerable extent for fruit, vegetables, fodder crops and a small part of the tobacco. Spraying is well suited to the application of water on deep soils by small pumping plants, particularly when the quantity of water available is limited. Experimental use of the border check method in the irrigation of pasture and fodder crops during the last three years has proved successful and may supersede other methods.

The following table shows for each division of the State the number of irrigators and the areas under irrigated culture for the year ended 31st March, 1951.

AREA OF LAND UNDER IRRIGATED CULTURE : QUEENSLAND, 1950–51.(a)

Division.	No. of Irrigators.	Area under Irrigated Culture (Acres).							
		Vegetables.	Fruit.	Sugar Cane.	Tobacco.	Cotton.	Other Crops.	Pastures.	Total.
Southern Queensland ..	2,564	14,179	1,686	7,150	998	9	10,451	2,713	37,186
Central Queensland ..	208	575	120	..	..	199	1,320	334	2,548
Northern Queensland ..	1,120	2,719	472	37,958	1,971	11	209	76	43,416
Total	3,892	17,473	2,278	45,108	2,969	219	11,980	3,123	83,150

(a) Year ended 31st March, 1951.

The growth of irrigation is illustrated by the following figures for the total area of irrigated land :—1906, 9,922 acres ; 1916, 10,886 acres ; 1926, 24,250 acres ; 1936–37, 44,509 acres ; 1940–41, 60,961 acres ; 1950–51, 83,150 acres.

The pattern of irrigation in Queensland is unlike that in southern States ; the more important developments in tropical and sub-tropical areas are therefore discussed briefly in the sub-sections following. It should be noted that the spring to autumn " irrigation season " of the temperate southern irrigated lands is not applicable, and that round the year irrigation is required throughout most of the State, the timing and duration of the summer " wet " season being too variable to enable a definite non-irrigation season to be fixed.

(ii) *Lockyer Valley.* West of Brisbane and within 50 miles of that metropolitan market is the Lockyer Valley, which is portion of the Brisbane River Basin. The Valley comprises an extensive flood plain where heavy black alluvial soil thickly overlies gravels and sands carrying water suitable for irrigation. Despite a mean rainfall of 30 inches the variation is great, and irrigation is necessary for continuous agricultural production. Surveys suggest that some 60,000 acres of land highly suitable for irrigation are available. Of this area only about 30 per cent. is under irrigation, the number of pumps operating from wells and open water exceeding 550 and 500 respectively. Over 60 per cent. of the farmers operate electric pumps for irrigation purposes and a special policy designed to encourage such development is fostered by the City Electric Light Company which serves the Valley. The Irrigation and Water Supply Commission has constructed a number of small weirs on Lockyer Creek with a total storage of 1,370 acre feet. These also tend to augment and conserve underground supplies. To study local problems, an Irrigation Research Station was established at Gatton in 1946 by the Bureau of Investigation.

The Lockyer Valley produces a substantial proportion of Queensland's onions, potatoes, pumpkins, lucerne, hay, green fodder, maize and dairy products.

(iii) *Burdekin River.* The Burdekin River, which joins the sea between Townsville and Bowen, is a major factor in the life of North Queensland. In most years heavy floods from a catchment twice the size of Tasmania cause extensive damage and traffic disabilities. On the other hand, the fertile Delta Area with its underground water supplies at shallow depth has contributed greatly to the agricultural prosperity of North Queensland. The projected irrigation, hydro-electric and flood mitigation scheme, together with the high level railway bridge at present under construction, will change the Burdekin from a mixed blessing to one of the Commonwealth's greatest resources for agricultural and industrial production. Present development is confined to the Delta Area. The average annual rainfall of this area is some 41 inches, but the major part falls in the months December to March. Consequently, sugar growers and other farmers have tapped the underground water resources of the Delta to obtain supplies in the dry periods.

Sugar is the main irrigated crop, though citrus, pineapples, vegetables and tobacco are also irrigated. The irrigated area is in excess of 30,000 acres, up to 1,000 acre feet of water being drawn daily from underground sources.

In the Home Hill–Inkerman areas on the south side of the Burdekin, water is obtained from shallow wells by electric pumps supplied from a local power station now controlled by the Townsville Regional Electricity Board. Around Ayr, on the north side of the river, electric power from the mains of the Townsville Regional Electricity Board is now being adopted in place of the individual internal combustion engines previously used. At both Home Hill and Ayr water for domestic supply is raised by a windmill on each property.

In 1940 the Burdekin River Trust was formed to safeguard the sugar areas of the Delta from erosion and floods. An Irrigation Research Station has recently been established to study the development of pastures and irrigated crops under local conditions.

A major multi-purpose scheme, involving irrigation, flood control and hydro-electric power generation, is being investigated by the various interested Government Departments under the general supervision of the Burdekin River Authority. The development envisaged would include a dam storing some 4,000,000 acre feet, which would make water available for the irrigation of at least 250,000 acres. The principal industries anticipated are tobacco-growing, dairying and cattle fattening, with sorghum, sunflowers, peanuts, cotton and sugar cane as other possible forms of production.

The recently constituted Clare Irrigation Area is at present being developed for tobacco production. Located from 25 to 37 miles upstream from the mouth of the Burdekin, this area comprises some 6,000 acres which will obtain irrigation water from central pumping stations drawing initially on the unregulated river flow of the Burdekin. This development is a first step in the major Burdekin scheme.

(iv) *Dawson Valley.* The Dawson River, a 392-mile long tributary of the Fitzroy River, rises in the Carnarvon Range and joins the Mackenzie River to form the Fitzroy some 50 miles west of Rockhampton. Lands bordering the river in its northerly course of about 170 miles before its confluence with the Mackenzie River are commonly termed the Dawson Valley. A scheme for the development of the Dawson Valley under irrigation was inaugurated in 1923, providing for the irrigation of some 70,000 acres. Storage for the scheme was to be provided by a dam at Nathan Gorge of some 2,000,000 acre feet capacity. Much investigational and survey work on the scheme was carried out, but the general financial depression and limited loan funds brought about the cessation of this work. However, the initial step in construction had been completed, comprising a weir on the river at Theodore and irrigation works to serve an area of some 3,500 acres supplied from a central pumping station. An additional weir has since been built, giving a total storage of 11,000 acre feet. Pasture, vegetables, cotton, fruit and dairying products are the principal produce. The cheese factory established at Theodore has been closed, but there is a ready market for all cream produced, and with the increase in dairying based on irrigated lucerne and pasture, the future of the area appears assured. Attention has recently been given to the former plans for the Valley and earlier work is now under close scrutiny as a prelude to future development.

(v) *Walsh-Barron Tobacco Lands.* The Walsh and Barron Rivers rise in the Great Dividing Range some 50 to 60 miles south-east of Cairns. Sandy soils suitable for tobacco are to be found in the valleys of these rivers in the neighbourhood of Mareeba and Dimbulah. Surveys indicate that 40,000 acres of land suitable for irrigated agriculture are available, including 32,000 suitable for tobacco. At present some 800 acres of high grade tobacco are grown annually, together with small areas of vegetables and fruit. Six weirs of combined capacity of 1,800 acre feet are being provided on a number of streams to store water for irrigation. Full development of the area is dependent on the provision of a major dam at Nullinga on the Walsh River, and possibly at Tinaroo Falls on the Barron River, and the construction of these dams is being investigated. Tobacco would be the basic crop, whilst peanuts, vegetables, broom-millet, maize, citrus, cotton, and giant cowpeas may prove suitable subsidiary crops. Should pastures be established as a rotational sowing for tobacco, cattle fattening might also be introduced.

(vi) *Border Rivers Project.* The development of the rivers constituting portion of the border between Queensland and New South Wales is under the authority of the Dumaresq-Barwon Border Rivers Commission on which each State is represented. For information on the project *see* page 1210.

5. **Bureau of Investigation.**—Under the Land and Water Resources Development Act of 1943 a Bureau of Investigation has been set up for the co-ordinated investigation of land and water resources development.

The Bureau consists of representatives from the authorities controlling water resources, lands and agriculture, under the chairmanship of the Co-ordinator-General of Public Works. Among notable work carried out by the Bureau of Investigation since its inception has been the trial planting of irrigated pastures with a view to developing mixtures suited to the special conditions of each part of the State. Other valuable work has included the mapping of the ultimate land uses of the State, and the detailed investigation of the agricultural and pastoral potentialities of many regions.

6. **Channel Country.**—Extensive investigations of the Channel Country fed by inland rivers in the south-western corner of the State have been made by the Bureau of Investigation. This country is intersected by shallow and irregular flood channels through which huge volumes of flood waters pass in favourable seasons; consequent on the flooding, a heavy growth of natural pastures is produced on the flooded lands, providing feed in quantities far in excess of that required for the normal stock population of the area. If the occurrence of flooding could be made more reliable by means of storages to create artificial floods, the pastoral resources of the area would be enormous. However, inquiries directed on these lines have revealed that little can be done to increase or stabilize the turn-off of fat cattle by artificial storage, but that improved transport facilities are essential.

At 30th June, 1951, 30 watering facilities, at an estimated cost of approximately £150,000, had been proposed under a Federal-State agreement for stock routes through, and in the approaches to, the Channel Country. Two had been completed, progress in general having been delayed by wet weather and lack of contractors for bore drilling.

7. **Bradfield Scheme.**—Detailed discussion of the scheme proposed by the late Dr. J. J. C. Bradfield for overcoming natural climatic disabilities of the Lake Eyre Basin (South Australia) and Western Queensland will be found on page 1128 of Official Year Book No. 37.

8. **Hydro-electricity.***—Behind the coastal plain of the Cairns–Ingham area is an extensive plateau, the elevation ranging from 2,000 to 3,000 feet, although isolated peaks exceed 4,000 feet. The short coastal streams which rise on the plateau descend rapidly into deep gorges, which they have cut through the old divide. With heavy monsoonal rainfall on their catchments and concentrated fall, these streams represent a considerable potential source of power, but storage, which can in most cases be provided, is essential to control the very variable flow.

The Barron Falls Scheme, 14 miles north-west of Cairns, came into operation in 1935. The installed plant operates under a head of 410 feet and comprises three 2,000 h.p. turbines each connected to a 1,320 kW. generator. Average rainfall varies from 80 to 150 inches along the ranges to less than 35 inches in the western portion of the catchment. There is extreme variation from year to year, resulting in great fluctuation of stream flow which, at Kuranda, has varied from a maximum of 117,000 cusecs in 1911 to a minimum of 30 in 1915. Storage to regulate the flow is possible but has not yet been provided. During periods of low flow the supply of electricity is supplemented by fuel plants at Cairns, Atherton, and Innisfail. Power is distributed over 22,000 volt transmission lines serving the tableland and extending southward along the coast to Tully.

A small hydro-electric scheme on the Mossman River, 5 miles from Mossman, North Queensland, comprises two 120 h.p. turbines operating under a head of 200 feet.

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* *See also* Chapter XXV.—Electric Power Generation and Distribution, pp. 1184–5.

A hydro-electric power scheme at Tully Falls is to be constructed. Water controlled by Koombooloomba Dam to be built on the upper Tully River will be diverted, a short distance above Tully Falls, through a tunnel and steel penstocks to pelton-driven generators under a head of 1,485 feet. Ultimate installation will be four 18,000 kW. sets, two of which will be installed initially. Future automatic power plants upstream and downstream from Tully Falls will consist of two 7,500 kW. sets under 405 feet head and one 5,400 kW. set under 230 feet head. The combined peak load for the three plants will be 69,000 kW.

Other northern schemes which have been investigated include Freshwater Creek (3,900 kW.); North Johnstone–Russell Rivers (32,000 kW.); Beatrice–North Johnstone Rivers (9,000 kW.); South Johnstone River (25,000 kW.): extension of Barron Falls scheme (22,000 kW.); Herbert River (90,000 kW.). The total potential of the plateau region is therefore about 250,000 kW. at 50 per cent. load factor.

A power plant immediately below the Burdekin Falls Dam of the proposed Burdekin River Irrigation Scheme will operate under an average head of 225 feet. The output of firm power will depend upon the varying demand for water for irrigation, but it is expected to average about 50,000 kW.

South of the Burdekin River no appreciable hydro-electric development is practicable. A plant of 3,200 kW. capacity is being installed to utilize the outflow from Somerset Dam on the Stanley River a few miles above its confluence with the Brisbane River.

§ 5. South Australia.

1. **General.**—(i) *Rainfall.* Brief particulars of the climatic conditions in South Australia were given on page 1129 of Official Year Book No. 37, and Chapter II.—Physiography, of this issue, contains information on the climatic conditions in each State.

(ii) *Administration.* Water supplies, other than irrigation works, are under the control of the Engineering and Water Supply Department, which administers the Waterworks Act governing the supply of water through mains in water districts for townships and farm lands. The Water Conservation Act provides for the construction of storages in non-reticulated areas and authorizes the Minister to "divert and impound the water from any streams or springs or alter their courses, and take water therefrom, or any other waters as may be found in, under or on any land entered upon for the purpose of supplying water to the inhabitants of any water district".

(iii) *Methods of Catchment and Conservation.* Early steps were taken to vest all running streams, springs and "soaks" in the Crown. Since the Water Conservation Act was passed in 1886 more than 550 dams, tanks and "rainsheds" have been built or acquired by the State, in addition to 460 wells and 340 bores, at a total cost of £1,263,752. The rainsheds comprise timber frameworks roofed with galvanized iron to catch precipitation which is delivered to storage tanks. Rainshed catchments vary from a few hundred square feet to four acres, discharging water into tanks ranging in capacity from 2,000 to 500,000 gallons. Over most of the State extraordinary precautions are taken to counteract evaporation. Pipelines in preference to open channels are used to reduce seepage and evaporation. Meters are attached to practically all services to check usage by individual consumers.

2. **Irrigation.**—In South Australia irrigation is almost exclusively confined to the Murray Valley. Except for that held in various lock pools, no water from the Murray is stored in South Australia. Water is either pumped on to the land or gravitated from the river. The upper Murray of South Australia and the Mildura area of Victoria formed the cradle of Australian irrigation. South Australian irrigation commenced with an agreement between the Government and the Chaffey Brothers in 1887 whereby 250,000 acres at Renmark were made available for irrigation settlement. Including land allotted for War Service Land Settlement purposes, the Department of Lands administers an area of 31,007 acres of irrigable high land, together with 9,381 acres of reclaimed swamp and 167,042 acres of non-irrigable land in the irrigation areas and 34,147 acres of land temporarily leased and reserved for commonage or other purposes, amounting in all to 241,577 acres. In addition, the Renmark Irrigation Trust controls 20,557 acres, of which more than 8,500 are irrigated. Water used for irrigation purposes in 1950–51 in the high land

irrigation areas controlled by the Department of Lands was approximately 90,000 acre feet, in addition to which approximately 60,000 acre feet were used on reclaimed areas by gravitational watering. In the Renmark area water used for irrigation in 1950–51 was 26,300 acre feet. The production of the upper Murray areas is almost exclusively fruit and vines. Principal crops are sultanas, currants, lexias, apricots, peaches, nectarines, pears and figs (mainly for dried fruit), wine grapes and citrus fruits. Before irrigation, these semi-arid lands were of little productive value. The following tables show the acreage devoted to various crops in the government controlled and Renmark Irrigation Trust areas on the upper Murray, and in the government controlled reclaimed swamp districts near the mouth of the Murray which are devoted to dairying.

IRRIGATION AREAS ADMINISTERED BY DEPARTMENT OF LANDS AND RENMARK IRRIGATION TRUST, SOUTH AUSTRALIA: AREA OF LAND UNDER IRRIGATED CULTURE, 1950–51.

(Acres.)

Area.	Vine Fruits.	Tree Fruits.	Citrus Fruits.	Lucerne.	Other Fodders.	Total.
Orchard land—						
Berri	5,569	707	1,102	29	..	7,407
Cadell	583	112	92	39	..	826
Waikerie	2,067	402	1,052	23	..	3,544
Cobdogla	3,955	110	166	18	..	4,249
Moorook	414	115	165	17	..	711
Kingston	283	78	180	1	..	542
Mypolonga ..	27	329	459	1	..	816
Chaffey	812	33	8	1	..	854
Total ..	13,710	1,886	3,224	129	..	18,949
War Service Land Settlement—						
Cooltong	265	130	392	..	..	787
Loxton	1,290	287	878	..	..	2,455
Loveday ..	237	46	21	..	..	304
Grand Total ..	15,502	2,349	4,515	129	..	22,495
Renmark Irrigation Trust	7,250	620	845	..	..	8,715
Reclaimed Swamp Land—						
Monteith ..	..	..	..	..	933	933
Mypolonga ..	..	..	..	40	1,362	1,402
Wall	..	..	..	9	352	361
Burdett	..	..	..	1	106	107
Mobilong	..	..	..	45	376	421
Long Flat ..	..	..	..	..	393	393
Neeta	..	..	..	..	596	596
Pompoota ..	..	..	..	3	417	420
Cowirra	..	..	..	24	537	561
Jervois	..	..	..	38	3,613	3,651
Total ..	..	..	..	160	8,685	8,845

The expenditure incurred by the Government to the 30th June, 1951 in purchase of land, reclamation of swamps, preparation of irrigable lands for fruit growing, and purchase of pumping plants for drainage and water supply is approximately £4,928,000. Further irrigation development is being undertaken as a part of the Commonwealth-wide War Service Land Settlement Scheme. South Australia's share of a total of 32,000 acres of horticultural plantings under the Scheme is 10,000 acres, comprising citrus 3,500 acres, vines 5,300 acres, and deciduous tree fruits 1,200 acres. Schemes already approved and under construction will absorb between 7,000 and 8,000 acres, and further areas are being selected to take up the balance. Holdings will be provided for about 380 settlers, and annual production from the 10,000 acres of plantings mentioned is estimated at :—Citrus, 1,000,000 cases ; deciduous tree fruits—dried, 800 tons, fresh, 2,300 tons ; dried vine fruits, 5,600 tons ; wine grapes, 12,800 tons. On present-day prices, the value of this production would approximate £1,500,000.

Renmark Irrigation Trust is administered by a local board of management consisting of seven members. This area differs from other South Australian irrigation areas in that the land is freehold instead of leasehold, self-contained and self-controlled. Every settler is entitled to vote for the election of Trust members. The Trust maintains 80 miles of channel for the reticulation of 8,715 acres.

3. **Country Water Supply Schemes.**—(i) *Summary.* Water conservation and distribution works in South Australia have cost £24,458,000 (exclusive of river control and irrigation works on the River Murray which are dealt with above). A summary of statistical information concerning country supplies in 1949–50 follows :—Length of water mains, 5,489 miles ; capacity of storages, 9,500 million gallons ; approximate population served, 237,000 ; area served, approximately 4,000,000 acres ; and total capital cost, £17,410,000.

Areas extending for a distance of 90 miles north of Adelaide are supplied from the Warren and Barossa Reservoirs in the Barossa Ranges, and agricultural towns and areas further north are supplied from Beetaloo, Bundaleer and Baroota Reservoirs, with a connexion to the Warren system. Eyre Peninsula has, up to the present, been supplied from the Tod River Reservoir (9,167 acre feet) and three small reservoirs near the Franklin Harbour District, but demands have increased to such an extent in recent years that further sources of supply are necessary, and with this end in view a water-bearing area known as the Uley-Wanilla Basin has been developed, and water from it is now being used in the Tod River system.

(ii) *Morgan-Whyalla Water Supply Scheme.* For particulars of the construction and works of the 223-mile pipe line bringing water from the Murray at Morgan to Whyalla on Spencer Gulf *see* Official Year Book No. 37, page 1132. The Morgan–Whyalla Water Supply Scheme forms part of the South Australian Country Water Supply system referred to above.

4. **Underground Water.**—The occupied portion of South Australia is, on the whole, well endowed with underground water. The extent of the several artesian basins is tolerably well known. There are also considerable areas, notably in the south-east of the State, in which ground water occurs. Quality varies widely, but a great deal is at least useful for watering stock, the major use to which it is put. Apart from numerous boreholes and wells tapping underground water for farms, stations and towns, two notable basins are being developed on Eyre Peninsula—one at Flinders (Streaky Bay) and the other at Uley-Wanilla, near Port Lincoln. Leigh Creek coalfield, some 350 miles north of Adelaide, derives its supply from a borehole at Sliding Rock mine, the water being pumped through a pipeline 25 miles long.

The deepest portion of the Great Artesian Basin (in the north-east) is not extensively developed because development costs are large in proportion to the carrying capacity of the arid land. Deep boreholes have been drilled by the Government, however, to provide watering places along stock routes, and pastoralists rely largely on supplies in suspended basins at shallower depths.

The use of the waters of the Murray Basin is essential to settlement in the Murray Mallee country and in the south-east, especially for farms, but also for township supplies for Mount Gambier, Naracoorte, Bordertown and Pinnaroo. The maximum depth of boreholes is 235 feet and the minimum 71 feet. Average tested yield is 14,808 gallons per day.

Pastoralists, farmers, market gardeners and others have been assisted with expert advice on drilling, for which the Government maintains about 40 drills. A large area within the Murray River Basin has been examined critically to ascertain the extent of land which could be used for lucerne, and an examination of a large part of Kangaroo Island and Southern Eyre Peninsula has been completed in connexion with Soldier Settlement schemes. Examination of large areas in the Upper South-East has been undertaken in connexion with land development schemes.

The results of comprehensive surveys of underground supplies undertaken by geologists of the South Australian Government have been published in the State's geological survey bulletins in recent years.

5. **Farm Water Schemes.**—While the Department of Mines and the Engineering and Water Supply Department give assistance to individual farmers in the provision of supplies from underground sources, a great part of the farming areas derive water supply under pressure from the extensive distribution systems connected to various reservoirs or the Murray River.

6. **South-Eastern Drainage.**—For some information on the drainage schemes necessary for the disposal of surplus water in areas in the south-east of South Australia *see* Official Year Book No. 37, page 1133.

§ 6. Western Australia.

1. **General.**—(i) *Rainfall.* Brief particulars of the climatic conditions in Western Australia were given on page 1133 of Official Year Book No. 37, and Chapter II.—Physiography, of this issue, contains information on the climatic conditions in each State.

(ii) *Administration.* Irrigation districts are administered under the Rights in Water and Irrigation Act of 1914–1945 and the Government is advised by an Irrigation Commission representing the local irrigationists and government technical and financial branches. The Goldfields Water Supply is administered by a branch of the Public Works Water Supply Department and its responsibilities include control of water from this scheme for agricultural purposes. The metropolitan water supply is controlled by a separate department under the control of the Minister for Water Supply, Sewerage and Drainage. Under the Water Boards Act (1904) fourteen towns are administered by local water boards and 30 are under direct Ministerial control. The Minister also controls three District Farming Schemes. Water rights over water flowing in streams and water courses is vested in the Crown unless specifically appropriated for irrigation purposes under the irrigation legislation.

2. **Irrigation.**—The main irrigation districts—Harvey, Waroona and Collie—are along the south-west railway line between Waroona (70 miles from Perth) and Dardanup (116 miles from Perth). The total area irrigated in these districts during 1950–51 was 18,923 acres and the total water used was 56,870 acre-feet. The total acre waterings (i.e. the number of acres watered multiplied by the average number of waterings) was 85,440.

Harvey Districts (Nos. 1 and 2—32,663 acres) are supplied from the Harvey Weir (8,300 acre-feet) and Stirling Dam (44,344 acre-feet), Waroona District (10,325 acres) from Drakesbrook Dam (1,855 acre-feet) and Samson's Brook Dam (6,540 acre-feet), and Collie District (28,762 acres) from Wellington Dam (27,800 acre-feet).

The following table, which shows acre waterings supplied to crops in the irrigation districts of Harvey, Waroona and Collie during the seasons 1938–39 and 1946–47 to 1950–51, illustrates the growth of these irrigation schemes.

IRRIGATION, WESTERN AUSTRALIA: ACRE WATERINGS.

Year.	Pasture.	Fodder.	Potatoes.	Vegetables.	Orchard.	Flax and Broom Millet, etc.	All Crops.
1938–39	31,049	934	3,142	692	922	..	36,739
1946–47	61,948	547	4,304	3,209	1,096	..	71,104
1947–48	57,450	508	3,714	3,433	1,190	..	66,295
1948–49	71,687	640	2,692	3,562	1,448	..	80,029
1949–50	79,373	685	4,591	4,297	1,369	4	90,319
1950–51	76,431	793	2,946	4,090	1,180	..	85,440

3. **Water Supply Schemes.**—(i) *Goldfields Scheme.* Western Australia has one of Australia's most spectacular water supply schemes, and a brief account of its development will be found on page 1134 of Official Year Book No. 37, and an account in greater detail on page 576 of No. 6. Mundaring reservoir on the Helena River, 26 miles from Perth, is the source of water supplied to the goldfields, and has a capacity of 15,100 million gallons and a catchment of 569 square miles. The water now passes through 346 miles of steel main, mostly of 30 inch diameter, aided by eight pumping stations, involving a total net lift of 1,280 feet.

Hundreds of miles of branch mains and pipes have been laid to mining districts, towns and farming districts, the most important being the Norseman extension of 101 miles. The system serves 34 towns and water is reticulated to 970,000 acres of farming lands. Total length of mains is 1,793 miles and the population served is 55,000. Total quantity of water pumped from Mundaring in 1950–51 was 2,470 million gallons. Total cost of system to the end of 1950–51 was £7,331,691.

Work has now been completed on raising the impounding wall at Mundaring Weir and preparations are well in hand for the raising of the wall at Wellington Dam (50 feet). Steady progress has been made on the 30 inch diameter pipeline from Wellington Dam to Narrogin, approximately 30 miles having already been completed. Large storage reservoirs have been constructed at Kalgoorlie (25 million gallons) and at No. 8 Pumping Station (12 million gallons) for the purpose of safeguarding supply during the hot summer months. To increase the quantity of water delivered from No. 3 Pumping Station to No. 4 Pumping Station and the Goldfields Area, a booster pump hasnow been installed near Kellerberrin. This pump, which came into operation during 1950–51, is capable of giving an additional flow through the main conduit of approximately one and a half million gallons per day.

(ii) *Rock Catchments.* An interesting feature of the State's conservation system is found in the Barbalin, Narembeen and Kondinin District Farming Land Schemes in the wheat belt, where extensive granite outcrops have been used as catchments. The rain is caught at the foot of the rocks, and pumped to tanks from which the water is reticulated to farms and to a number of small towns. For further particulars *see* Official Year Book No. 37, page 1135.

(iii) *South-west Scheme.* The Commonwealth Government has agreed to assist a scheme to extend water for agricultural areas and towns in the south-west of Western Australia, which will be administered by the State Government. It is estimated that the scheme will cost £4,300,000 of which the Commonwealth will contribute £2,150,000. The scheme provides for raising the height of the Mundaring Weir and the Wellington Dam to increase the storage capacity of these reservoirs to 15,000 million gallons and 38,000 million gallons respectively (*see* above), and for increasing the capacity of pumping stations on the Goldfields pipeline to permit water diversions from that source. Twenty-three towns and over 4,000,000 acres of agricultural country will benefit.

4. **Underground Water.**—Individual farmers, orchardists, market gardeners and others derive water from wells or windmills wherever available, and, where power is available, pumps and motors are used to tap such supplies. The Department of Public

Works has twelve boring plants which are lent out to farmers to facilitate boring operations to an average depth of 150 feet. The Department also contracts with private firms to bore for communal farm supplies. During the past 58 years 300 artesian and sub-artesian bores have been sunk, mostly for private purposes. The total depth of all recorded bores in Western Australia is 245,604 feet; daily flow is 87,692,500 gallons; and the average depth at which water is struck is 819 feet. Maximum depth of any bore is 4,006 feet and minimum 21 feet.

5. **Ord River Scheme.**—The Ord River in the north-west of Western Australia traverses a tropical area served with monsoonal rains of irregular incidence and quantity, varying from 20 inches in the south to 30 in the north. The hottest months (December to March) are also months of highest rainfall. Communications and population are sparse. The Western Australian Government is considering a proposal to build a dam to conserve 2,000,000 acre feet of water, equipped with hydro-electric plant, which might supply irrigation water for an area of 100,000 acres, if investigations show that the climate and soil conditions are suitable for vegetables, tropical fruits and rice. However, the economic production of these and other crops, as well as the possible use of such irrigation areas for interim fattening of cattle, is being examined at the Kimberley Research Station on the Ord River.

§ 7. Tasmania.

1. **General.**—(i) *Rainfall.* Brief particulars of the rainfall pattern in Tasmania were given on page 1136 of Official Year Book No. 37, and Chapter II.—Physiography, of this issue, contains information on the climatic condition in each State.

(ii) *Main Purposes of Conservation and Utilization.* Owing to its fortunate rainfall position, scarcity of water is not a serious problem in normal seasons. Conservation of water for hydro-electric generation is the predominant interest, and conservation for domestic and industrial purposes is more important than irrigation. Conservation of water on farms is not practised to the same extent as on the mainland, probably because running streams and good rainfall are on a more generous scale. Provision of artificial storages (apart from house tanks) is rare, but progressive landowners are beginning to take advantage of modern plant, such as bulldozers, to provide small excavated storages in their properties. Underground water is of poor quality and a small quantity exists over an area in the Midlands which has been exploited to a limited extent only by bores and windmills. Geological conditions do not appear to favour the utilization of ground water except on a minor scale. There is only one known flowing bore—at Spreyton, which yields 1,690 gallons per hour.

(iii) *Administration.* The State does not own all natural waters as in Victoria, and consequently the subject of water rights is a difficult one. The Mines Department has power to grant certain rights for mining operations, and the Hydro-Electric Commission must approve the abstraction of water from any stream or lake of potential value for power generation. There is no machinery other than the Courts for deciding the issue in cases where municipal councils or private individuals propose to divert water for town supplies or irrigation from streams in which neither of these two authorities is interested. The only exceptions are a few municipal and industrial undertakings which have statutory rights.

2. **Hydro-electricity.**[*]—Tasmania depends entirely on water for power development, and its power potential has been estimated at 3,500,000 h.p. on the basis of 50 per cent. load factor and 80 per cent. turbine and generator efficiency. The Hydro-Electric Commission, the authority controlling the generation of electricity in Tasmania, provides most of Tasmania's power requirements from four power stations—Waddamana, Tarraleah, Shannon and Duck Reach. The Mount Lyell Mining and Railway Co. Ltd.

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[*] *See also* Chapter XXV.—Electric Power Generation and Distribution, pp. 1193–5.

also operates a 10,000 kW. plant at Lake Margaret on the west coast to serve copper mines, and this station is interconnected with the Commission's network. Small stations operated by tin mining companies have a total capacity of 2,000 kW.

Only a brief description of the major schemes is given below.

The first stage of the Waddamana power station with an installed capacity of 10,000 h.p., was completed in 1916. This station which is now called Waddemana A power station has subsequently been extended to 66,000 h.p., while a new station Waddemana B, of capacity 66,800 h.p., was completed in 1947–48.

In the Shannon scheme water from the Great Lake passes down the Shannon River by pipeline and canal to the Shannon Power Station, where 14,500 h.p. is generated before the water passes into the Waddamana canal and power station.

The Waddamana and Shannon power stations are fed with water from the Great Lake, which is situated near the geographical centre of the State at an elevation of 3,380 feet above sea level.

Tarraleah power station is situated on the Nive River, but is served by water from the River Derwent and Lake St. Clair. The water from Lake St. Clair flows down the Derwent to Butler's Gorge, where a 200 feet high concrete dam (Clark Dam) impounds up to 243,000 acre feet of water.

The Butler's Gorge power station is situated at the foot of the Dam and at maximum water level it can develop 17,100 h.p. Water discharged from Clark Dam is diverted into the Tarraleah Canal and thence into Tarraleah Lagoon for use in the Tarraleah power station which has a capacity of 126,000 h.p.

Work has commenced on the Tungatinah Power Development which will regulate the run-off from that part of the Central Plateau which lies between the Great Lake and Lake St. Clair catchments. A dam will divert the headwaters of the Nive River into a chain of lakes formed by constructing levees across the outlets of Woodward's, Brady's, Big and Nive Marshes. Water will then be conveyed by a tunnel and penstocks to the Tungatinah power station which will have an ultimate capacity of 175,000 h.p. As a further stage of this project a dam across the River Dee at the outlet from Lake Echo will provide about 300 cusec-years of storage which will be used to augment the storage in Brady's, Big and Nive Marshes.

The Trevallyn Power Development is being undertaken primarily to meet the power requirements of the aluminium industry. It involves the construction of a power station at sea level and works to bring water from the Second Basin in the South Esk River to the Tamar, about two miles from Launceston. To increase the storage capacity and regulate the flow of the Lake River, weirs will be constructed at its outlet from Arthur and Woods Lakes.

The following table shows the development of Tasmania's hydro-electric power resources at the end of 1950 :—

HYDRO-ELECTRIC POWER RESOURCES : TASMANIA.

Power Station.	Installed Capacity.	Ultimate Capacity.
	H.P.	H.P.
Waddamana A and B	132,800	132,800
Shannon	14,500	14,500
Tarraleah	105,000	126,000
Butler's Gorge	Nil	17,100
Duck Reach	2,600	2,600
Trevallyn	Nil	112,000
Tungatinah	Nil	175,000
Lake Margaret	13,800	13,800

3. **Industrial.**—Three principal industrial schemes have been installed privately. The Australian Newsprint Mills pump approximately 6,000,000 gallons a day from the Derwent River at Lawitta for the Boyer mills. Associated Pulp and Paper Mills pump several million gallons a day from Emu River at Burnie, and Titan Products Pty. Ltd. reticulate water from Chasm Creek to their factory at Weybridge. Potential sources capable of greater development without storage exist on the Derwent, South Esk, Huon, Lake, Mersey and Forth Rivers. There is also a great reserve of untapped permanent streams in the western half of the State, at present largely unsettled. Diversion to the eastern side of the watersheds is not regarded as practicable.

4. **Irrigation.**—There are no State irrigation projects, but preliminary inquiries as to the possibility of establishing one in the Coal River Valley are to be made. All systems operating are privately owned and, with one exception (at Bushy Park), are single-farm units. At Bush Park a small system serves a group of properties. The larger proportion of the area under irrigation is watered by gravitational systems and the remainder comprises areas devoted to vegetables and served by municipal water supplies. Irrigation, as practised in Tasmania, was applied in 1950–51 to 7,242 acres devoted to: hops (1,075 acres); fruit (981 acres); pastures (4,700 acres); green fodder, etc. (167 acres) and other crops (319 acres).

§ 8. Northern Territory.

1. **Climate and Topography.**—Some particulars of the climate and main topographical features of the Northern Territory were given on page 1138 of Official Year Book No. 37, and in this issue information on climatic conditions will be found in Chapter II.—Physiography, and a brief outline of contour and physical characteristics in Chapter X.—The Territories of Australia.

2. **Administration.**—Under the Control of Waters Ordinance (1938) of the Northern Territory natural waters are vested in the Crown. Where a watercourse or lake forms a boundary of any land alienated by the Crown, the beds and banks are deemed to remain the property of the Crown (except in special cases) and diversion of water is prohibited except under conditions prescribed.

3. **Underground Water.**—Artesian water is found mainly in the south-east where the Great Artesian Basin enters the Territory. Pastoral (beef) production accounts for the bulk of the Territory's income, and the marked seasonal conditions affect the industry's economy. During the wet summer season there is adequate water, but during the winter most natural watering points disappear, and pastures dry. Bores supplement the permanent watering points, which are mainly along river frontages. The cattle industry is concentrated in the area in which the feed retains an appreciable nutritive value during the winter despite the dry conditions. This area is not in the wetter coastal regions, but in the inland belt of 15 to 25 inch rainfall and to the north of Alice Springs. Lack of bores is a limiting factor in the industry's economy, as cattle are able to thrive only within certain distances of reliable water.

Some 600 bores have been recorded, but complete records are not available. Maximum depth is more than 600 feet. For further information *see* Official Year Book No. 37, p. 1139.

4. **Irrigation.**—There are no large-scale water conservation projects in the Territory with the exception of the Manton Dam (80,350 acre feet) which serves Darwin with a reticulated supply. Irrigation has therefore assumed no current importance. For particulars of present activity and potentialities *see* p. 1138 of the previous issue.

§ 9. Papua and New Guinea.

1. **Rainfall.**—When all localities (32 stations) where gauges are kept are taken into consideration, the average annual rainfall over periods varying from two to ten years is about 159.21 inches. This figure includes both inland and coastal stations.

2. **General.**—For a general description of these territories *see* Chapter X.—The Territories of Australia, pp. 346, 349–350 and 360–362 of this Year Book. Irrigation has not been developed on any organized basis owing to the availability of high rainfall and the nature of agricultural development. The main water conservation interest in New Guinea at present is the hydro-electric potential.

Those portions of New Guinea administered by Australia are well served with large rivers deriving their water from heavy tropical rains and high mountains which rise to 13,000 feet. Complete data concerning water resources are not available, but it is known that the opportunities for production of hydro-electric power are extensive. Some authorities estimate that 20,000,000 h.p. could be generated. Present investigations have been limited to those areas where a demand for power is likely to arise. New Guinea has a substantial native population and few major industries.

Explorations over the southern portion, known as Papua, have resulted in the collection of much information concerning water resources. The largest stream is the Fly River, at least 500 miles long, which is situated in the western division. Its large tributaries extend to the northern boundary of the Territory rising among lofty mountain ranges. Records show that at a point above the tidal influence, where the river is 600 yards wide and 40 feet deep, the stream travels at a rate of 3½ miles per hour and discharges 105,200,000 gallons per minute. All the principal rivers flow from the main range in a southerly direction. Most of them carry a large volume from a great height over relatively short distances. They have a total catchment of about 50,000 square miles having an elevation between 2,000 and 13,000 feet. The Government Geologist has estimated that if only 50 per cent. of the annual rainfall were utilized through a height of only 500 feet a total of 8,500,000 h.p. would be produced.

CHAPTER XXVII.

DEFENCE.

§ 1. Department of Defence.

1. **Introduction.**—At the outbreak of the 1939–45 War, the Department of Defence comprised the three Fighting Services and a Central Secretariat. In November, 1939, separate Departments, each with its own Minister, were created for the control and administration of the Navy, Army and Air Force. The Defence Department as then reconstituted retained responsibility for over-all defence policy and for the conduct during the war of the business of the War Cabinet, set up in September, 1939, and the Advisory War Council, set up in October, 1940. These bodies ceased to function after the war.

2. **Functions and Organization.**—(i) *The Cabinet.* The determination of defence policy is the responsibility of Cabinet.

(ii) *Functions of Department of Defence.* Subject to the authority of Cabinet, the Minister and Department of Defence are responsible for :—

(1) The formulation and general application of a unified defence policy relating to the Defence Forces and their requirements, including :—(*a*) co-operation in British Commonwealth defence and the defence aspect of the Charter of the United Nations ; (*b*) the supply aspect of defence policy, including the review of production programmes and capacity ; (*c*) the scientific aspect of defence policy ; and (*d*) the financial requirements of defence policy, and the allocation of funds made available.

(2) The defence aspect of Armistice and Peace Terms, Control Commissions, and Forces of Occupation.

(3) Matters of policy or principle and important questions having a joint service or inter-departmental defence aspect.

(4) The higher defence machinery, and the control of the joint service machinery.

(5) The defence aspect of questions relating to the organization and machinery for :—(*a*) co-operation in British Commonwealth defence ; (*b*) co-operation in regional security, including obligations under the United Nations Charter ; (*c*) higher direction in war ; and (*d*) higher direction of the Services.

(6) The Commonwealth War Book, which is a summary of national plans for an emergency as developed in Departmental War Books.

(7) The administration of inter-service organizations, such as the joint intelligence machinery.

(8) The defence aspect of :—the strength and organization of the Forces, higher appointments in the Services, Honours and Awards.

(9) Advice on the military aspect of civil defence.

(iii) *Joint Service and Inter-departmental Machinery.* The joint service and inter-departmental advisory machinery of the Department consists of various committees headed by the Defence Committee, the Chiefs of Staff Committee and the Joint War Production Committee. The Defence Committee is a statutory body consisting of the Secretary, Department of Defence, who is Chairman, and the Chiefs of Staff of the three Services. In general, its function is to advise on defence policy as a whole, and on matters of policy or principle and important questions having a joint service or inter-departmental defence aspect. The main responsibility of the Chiefs of Staff Committee in peace is the preparation of strategic appreciations and military plans. The function of the Joint War Production Committee is, briefly, to examine the relation between strategical plans and their requirements to ensure that the war potential for them exists. The major committees subordinate to the Defence Committee and/or the Chiefs of Staff Committee comprise the Principal Administrative Officers Committee (Maintenance and

Materials), the Principal Administrative Officers Committee (Personnel), the Defence Research and Development Policy Committee, the Joint Planning Committee, the Joint Intelligence Committee and the Joint Administrative Planning Committee.

3. **Basis of Current Defence Policy.**—The principal strategic considerations influencing the Government's defence policy were described by the Minister for Defence on 21st February, 1952, and included the following features :—

(i) *Cold War.* That it was essential to check the form of aggression occurring in Korea and Malaya, and that an adequate Australian contribution to the "cold war" was essential both to our relations with our powerful friends and to the Allied strategic starting point should war occur.

(ii) *Global War.* That if there were war on a global scale, it would be won or lost outside Australia, and that, since no one country could win without the co-operation of all the others, Australia must therefore, in its own and the general interest, play a full part in its allotted place in the general Allied strategy, and that the employment of its forces must be planned in advance, in co-operation with these Allies.

(iii) *Local Defence.* That the local security of Australia, at least during the next two decades, was likely to depend on the control of sea and air communications in the Pacific and Indian Oceans and in the seas joining them.

(iv) *Time Factor.* That there were two aspects of the time factor :—firstly, that the time available for preparation might be very short ; and, secondly, that the degree to which the armed forces were prepared in advance of events must be much greater than had been found necessary in the past.

4. **The Defence Programme.**—(i) *Adoption of a Three Years' Defence Programme.* In June, 1947, approval was granted for a Defence Programme over five years from 1947–48 to 1951–52. As from the 1st July, 1950, it was decided to adopt a Three Years' Programme extending to 30th June, 1953, which is one year beyond the period of the Five Years' Programme. The Three Years' Programme provides for the completion of the Five Years' Programme, plus expansion approved in the Three Years' Programme.

(ii) *Objective.* The objective of the Defence Programme is to provide the strengths of the forces required on mobilization, together with their equipment. This objective involves the planned development of the strengths of the forces including National Service Trainees, the provision of accommodation, buildings and other facilities, the procurement of the full range of modern equipment and supplies, and the establishment of a Defence Research organization.

(iii) *Financial.* Funds allocated at 30th June, 1952, were as follows :—

FUNDS ALLOCATED FOR DEFENCE AT 30TH JUNE, 1952.
(£'000.)

Department.	Maintenance.	Capital.			Total.
		Material Requirements.	Buildings, Works and Sites.	Contingency Fund.	
Defence	2,615	371	793	166	3,945
Navy	65,962	69,931	7,909	3,686	147,488
Army	120,615	49,314	50,279	..	220,208
Air	58,734	67,196	12,193	..	138,123
Defence Production ..	7,157	8,230	7,324	..	22,711
Supply	10,813	1,506	1,568	..	13,887
Research and Development	11,977	4,667	14,157	94	30,895
Total	277,873	201,215	94,223	3,946	577,257

Total expenditure incurred against the above allocation to 30th June, 1952 was £239,069,000.

(iv) *Personnel Strengths.* The establishments approved as at 30th June, 1952, for the three Services, including Permanent and Citizen Forces and National Service Trainees, and the corresponding strengths as at that date were :—

Service.	Approved Establishments.	Strengths.
Navy	27,000	21,542
Army	130,500	72,717
Air Force	33,637	21,228
Total	191,137	115,487

(v) *Material Requirements.* Material requirements, which include munitions, ships, aircraft, clothing, motor vehicles and a very wide range of other essential requirements, are being procured from government factories and private industry in Australia and from overseas.

(vi) *Defence Buildings and Works.* The programme includes a substantial amount for aerodromes, accommodation for members of the Forces, buildings and other facilities. Defence works accounted for 35.6 per cent. of total expenditure by the Commonwealth Department of Works in 1950–51, and 42.5 per cent. in 1951–52.

(vii) *Defence Research and Development.* The major Australian contribution to Defence Research and Development has been the building up of the Long Range Weapons Establishment, which includes ranges at Woomera and the base establishment at Salisbury, South Australia. A great deal of preparatory work has been done and important trials of new military devices are now proceeding.

Although the Long Range Weapons Establishment is the major commitment, other important research and development activities, for example, in aeronautics and electronics, are being undertaken, and will make available contributions to defence.

The Defence Research and Development work being done in Australia is complementary to that being done by other Commonwealth countries.

5. **Australian Participation in Korea, Malaya and the Middle East.**—(i) *Korea.* In accordance with the resolutions of the Security Council calling on members of the United Nations to assist the Republic of Korea in resisting aggression, Australia has furnished forces as follows :—

Navy—Since 29th June, 1950, a Royal Australian Naval Force of two ships has been engaged in operations. This force has consisted from time to time either of two destroyers or a frigate and a destroyer. In addition, H.M.A.S. *Sydney* relieved H.M.S. *Glory* in October, 1951, for a period of three months, and the latter ship has been refitted at Garden Island Dockyard.

Army—At 30th June, 1952, the Forces in Korea consisted of :—

(i) 1 and 3 Infantry Battalions, The Royal Australian Regiment.

(ii) A proportion of a Brigade Head-quarters and of the Head-quarters 1st Commonwealth Division.

(iii) An element of the British Commonwealth Communications Zone.

3 Infantry Battalion, with necessary reinforcements, had been on active service in Korea since September, 1950, and 1 Battalion since March, 1952.

Air Force—No. 77 (Fighter) Squadron and No. 30 Transport unit, together with the necessary administrative and maintenance units for their support, are engaged in Korea and Japan as part of the United Nations Forces in the Korean Campaign.

Over-all operational control of the United Nations Forces in Korea is the responsibility of the American Unified Command which was established by the Security Council. The Commander-in-Chief, British Commonwealth Forces, Korea, is responsible for the non-operational control and administration of the British Commonwealth Forces in Korea, the land forces of which comprise 1st Commonwealth Division, United Nations Forces.

The number serving in H.M.A. ships in the Korean area, including a port party in Japan as at 30th June, 1952, was 610. Australian Army strength at that date in Korea and Japan was 3,909. Royal Australian Air Force strength at that date in Korea and Japan was 473.

(ii) *Malaya.* Since June, 1950, one Bomber Squadron and one Transport Squadron of the R.A.A.F. have been engaged in anti-bandit operations in Malaya.

(iii) *Middle East.* In June, 1952, No. 78 (Fighter) Wing, totalling 265 personnel, left Australia for service as part of the peace-time Air Force garrison in the Middle East.

For further details *see* sections relating to the respective Services.

6. **National Service Training.**—(i) *Liability.* Compulsory military training under the Defence Act was in operation from January, 1911 to November, 1929, when the Citizen Forces were re-constituted on the basis of voluntary enlistment. In March, 1951, the National Service Act was passed to enable effect to be given to the Government's policy of National Service training.

Under the National Service scheme, all male British subjects ordinarily resident in Australia, of the age of 18 years, are required to register when called upon to do so by notice published in the *Gazette.* The only exceptions are certain officials in the service of international bodies, diplomatic personnel, men already serving in the Permanent Forces and aboriginal natives of Australia. It is the Government's intention that the scheme should apply to migrants coming to Australia with the intention of making it their home, but there are certain difficulties of international law and practice which are being investigated.

Every registrant who complies with the standards of fitness laid down is liable to be called up for service unless he is exempt from service. The exempt classes, apart from persons subject to prescribed physical or mental disabilities, are theological students, ministers of religion, members of religious orders and conscientious objectors. There is provision for deferment of call up, while the ground of deferment continues, for such cases as apprentices, students, persons living in remote areas, and individual cases of exceptional hardship.

(ii) *Conditions of Service.* Service under the National Service Scheme is with the Citizen Naval Forces, the Citizen Military Forces or the Citizen Air Force. In determining in which part of the Citizen Forces a person is to serve, effect is given as far as possible to the preferences indicated. No person is called up for service with the Citizen Naval Forces or the Citizen Air Force unless he has volunteered for service beyond the limits of Australia. The total period of service to be rendered is 176 days. In the case of the Navy there is an initial period of 124 days continuous training, and 13 days continuous training a year for the next four years. In the case of the Army the initial period of continuous training is 98 days, with 14 days full-time camp training and 12 days part-time training in each of the following three years. In the Air Force, the total of 176 days training is completed in one continuous period, except in the case of students who may complete their service in two equal periods of eighty-eight days in the months of December, January and February of following years. (*See also* sections dealing with the respective Services.)

(iii) *Strength.* To 30th June, 1952, 34,500 trainees had been called up for training. A further 12,000 were to be called up by the end of 1952, and more than 36,000 in 1953.

§ 2. Military Defence.

1. **State Systems.**—A detailed historical account of the Australian defence forces prior to Federation will be found in Official Year Book No. 2, pp. 1075–1080. *See also* Official Year Book No. 12, p. 999.

The strength of the military forces of the States on 31st December, 1900 (the eve of Federation) was :—New South Wales, 9,338 ; Victoria, 6,335 ; Queensland, 4,028 ; South Australia, 2,932 ; Western Australia, 2,696 ; Tasmania, 2,024 ; total for Australia, 27,353. This total is exclusive of cadets, reservists and rifle club members.

2. **Commonwealth Systems.**—(i) *General.* Under the terms of the Constitution Act 1900, the Commonwealth took over control of defence matters in March, 1901. The growth of the Commonwealth Military Forces may be considered to have taken place in

sixteen phases. For particulars of the phases which cover the period from the welding together of the military forces of the States into one homogeneous army in 1902 up to the decision to increase the training strength of the militia to 70,000 in the year before the 1939–45 War (phases 1–7), *see* Official Year Book No. 36 and earlier issues.

Phases 8–10, covering the period immediately prior to, and just following, the outbreak of the 1939–45 War, relate to the initial steps necessary to put the Australian Military Forces on a war-time basis, and to its organization into commands.

The eleventh phase, in January, 1942, was the division of Northern, Eastern and Southern Commands into separate commands and base head-quarters to handle operational and administrative matters respectively, and the twelfth phase was the revision of the machinery for command administration of lines of communication areas. The thirteenth phase was the appointment of Lieutenant-General Sir Iven Mackay as G.O.C.-in-C. Home Forces commanding the forces in Northern, Eastern and Southern Commands. The fourteenth phase covers the period following the outbreak of war with Japan and the entry of United States of America forces into the South-West Pacific Area, and relates to the appointment of General Sir Thomas Blamey as Commander-in-Chief, Australian Military Forces, the cessation of the Military Board, and the replacement of the system of commands and bases by the field army and lines of communication areas. In March, 1943, First and Second Armies took over from Queensland, New South Wales and Victoria Lines of Communication Areas the command of all coast and static anti-aircraft artillery defences and training establishments. On 16th June, 1944, Western Command was re-established and took over the combined responsibilities of Third Australian Corps and Western Australia Line of Communication Area.

The fifteenth phase was the re-introduction in March, 1946 of the Military Board and the organization of commands and military districts, and the sixteenth phase was the commencement of the National Service Training Scheme in August, 1951 (*see* § 1, para. 6 *ante* and sub-para. (iv.) (*c*) following).

For greater detail on phases 8–14 *see* Official Year Book No. 38 and earlier issues.

(ii) *Estimated Population of Military Age, 30th June,* 1951. The following particulars show the estimated numbers of males of military age in the population of Australia as at 30th June, 1951. The total number of cadet age, 14 and over, and under 18, was 227,627; at citizen soldier age, 18 and over, and under 26, 520,102; and 26 and over, and under 35, 614,841; making a total of 1,134,943, 18 and over, and under 35, which is considered the best period for military service. In addition to the above-mentioned, it was estimated that there were 1,304,207 males 35 and over, and under 60, in Australia at 30th June, 1951.

(iii) *Allotment of Units.* Under the Command Organization (*see* above) units are raised on a territorial basis, each State supplying its proportion of the personnel required for the fighting services, the organization at 30th June, 1952 being as follows:—

COMMAND ORGANIZATION.

Army Head-quarters.

Northern Command	Eastern Command	Southern Command	Central Command	Western Command	Tasmania Command	Northern Territory Command
All formations and units in 1st Military District and New Guinea.	All formations and units in 2nd Military District.	All formations and units in 3rd Military District.	All formations and units in 4th Military District.	All formations and units in 5th Military District.	All formations and units in 6th Military District.	All formations and units in 7th Military District.

Military Districts conform generally to State or Territory areas, as follows :—1st Military District, Queensland ; 2nd, New South Wales ; 3rd, Victoria ; 4th South Australia ; 5th, Western Australia ; 6th, Tasmania ; 7th, Northern Territory. Third Military District includes a considerable portion of Southern New South Wales, and 4th includes Broken Hill.

(iv) *Military Training Systems.* (*a*) *General.* Particulars of the military training systems in operation prior to the 1939–45 War, first on a compulsory basis and later voluntary, will be found in Official Year Book No. 38 and earlier issues.

The present plan for the raising of the Australian Regular Army envisages a total of 33,000 soldiers and 5,000 civilians. The Citizen Military Force will comprise 30,000 voluntarily enlisted personnel and 67,500 National Servicemen.

(*b*) *The Australian Cadet Corps.* The Australian Cadet Corps is a voluntary organization comprised of School Cadet units and Regimental Cadet units. It serves as a training ground to provide, to some extent, the future officers and non-commissioned officers of the Australian Military Forces, and, as such, occupies a foremost position in the scheme of national defence. School Cadet units are raised at educational establishments in all States of the Commonwealth. The minimum age for enrolment is the year in which the applicant reaches the age of 14 years, and cadets, who in the large majority of schools receive a free issue of A.M.F. pattern uniform, may remain in the Cadet Corps until they cease to be pupils of the educational establishments concerned. A few units retain their own pattern school uniform and are not issued with A.M.F. pattern uniforms. Provision is made for the appointment of officers, warrant and non-commissioned officers on an authorized establishment scale from within school units. School cadet units are not affiliated with Citizen Military Force units.

Regimental Cadet units, however, are raised in close affiliation with Citizen Military Force units. These units are manned by the enrolment of boys who have either left school or are students at schools where no School Cadet unit is raised. Regimental Cadets wear the same uniform as their parent Citizen Military Force unit with the addition of the word " Cadets " directly under the unit title.

The establishment for the whole Corps is 35,000 all ranks, and by June, 1952, comprised 276 School Cadet units with a posted strength of 31,123 all ranks and 3,701 Regimental Cadets posted to Citizen Military Force units.

(*c*) *National Service Training Scheme.* Under the National Service Scheme (*see* §1, para. 6 above) the Army is required to train 29,250 trainees per year, effected by three intakes each of 9,750 trainees. The first intake commenced training in August, 1951.

(v) *Women's Services.* In November, 1950, approval was given for the enlistment of women into the Australian Regular Army, on a limited scale. Enlistment commenced immediately into the Australian Women's Army Corps. During June, 1950, the Australian Women's Army Corps was re-designated the Women's Royal Australian Army Corps (W.R.A.A.C.). Members are employed in establishments in direct substitution for male soldiers. The Women's Services in the Australian Regular Army now comprise two Corps only :—(*a*) Royal Australian Army Nursing Corps ; (*b*) Women's Royal Australian Army Corps.

(vi) *Korea.* On 2nd August, 1950, the Commonwealth Government announced its decision to raise and despatch to Korea one infantry battalion as part of Australia's contribution of military assistance to the United Nations. 3 Battalion, the Royal Australian Regiment stationed in Japan, brought up to strength by special enlistments flown to Japan from Australia, became the Special Korean Force, and on 27th September, 1950, sailed from Japan for Korea where it joined 27 British Brigade, later designated as 27 British Commonwealth Brigade. For its gallantry on 24th and 25th April, 1951, 3 Battalion was awarded the United States Presidential Citation by the United States of America. On 4th October, 1951, the Commonwealth Government announced that a second infantry battalion would be sent to Korea to join 3 Battalion. On 3rd March, 1952, 1 Battalion, The Royal Australian Regiment, which had been brought up to strength at Ingleburn, New South Wales, embarked for Japan where it was equipped before moving to Korea. 1 Battalion joined 3 Battalion, now under operational control of 28 British Brigade, 1st Commonwealth Division, on 1st June, 1952. Both battalions are still serving in Korea.

(vii) *The Staff College.* Until 1938 the training of staff officers was carried out in the various Military Districts throughout Australia, except in cases where officers were selected from time to time to attend courses abroad. In 1938 an Australian Command and Staff School, located in the original Officers' Mess at Victoria Barracks, Sydney, was established. Between 1939 and 1945 the training of staff officers was carried out under varying conditions by different schools in accordance with the changing needs of the war.

Early in 1946 the Staff School (Australia) was established at Seymour in Victoria and re-designated the Staff College in conformity with other Empire training establishments for training officers for command and staff appointments. The College was later moved to Queenscliff, Victoria, where it is at present situated. The courses are of one year's duration and are held from February to December each year. The normal intake is 30 students and, on successfully completing the course, an officer is awarded the symbol "psc". The course is designed to train selected officers for war, and in so doing to fit them for Command or Grade II. staff appointments. Each course includes among the students Army representatives of the United Kingdom, other Dominions and countries. Included in the 1951 course were students from the United Kingdom, Canada, New Zealand, India, Pakistan and the United States of America. Vacancies on each course are reserved also for officers who may be nominated by the Royal Australian Navy, the Royal Australian Air Force and the Commonwealth Public Service.

In order to ensure common standards in tactical doctrine and staff and command training throughout the Empire, liaison is maintained with other Staff Colleges; and to this end there is also a reciprocal exchange of instructors. To this extent it may be said that the Staff College is imperial in character.

(viii) *Royal Military College.* The Royal Military College was established in 1911 at Duntroon in the Australian Capital Territory for the purpose of providing trained officers for the Army. The conditions of entry are laid down in the Royal Military College Regulations and provide for admission by "normal", "service" and "special" entries. The length of the normal course is four years; "service" entry cadets attend for three years.

While at the College, cadets receive pay and allowance of 13s. 7d. per day in their first year, rising to 18s. 4d. per day in their fourth. Uniform maintenance allowance of 1s. 9d. per day is additional, and a further 6d. per day is paid to cadets on attaining the age of 18 years. The course of instruction is organized into military and civil departments and the instructional staff comprises officers of the army and civilian professors. On graduation, cadets are appointed lieutenants in the Australian Regular Army. The College also trains New Zealand cadets for commissions in the New Zealand Permanent Forces under an agreement made with the Government of that Dominion.

(ix) *The Officer Cadet School.* The Officer Cadet School was established in 1951 at Portsea, Victoria, for the purpose of speeding up the production of junior regimental officers for the Australian Regular Army. Serving members of the Australian Regular Army, the Citizen Military Forces, National Servicemen, and civilians between the ages of 18 and 23 years, are eligible to apply for entrance. The course is of six months' duration, and on graduation, cadets are appointed second-lieutenants in the Australian Regular Army. They then normally proceed to further training at the Army School of the Arm or Service to which they have been allotted before being posted to regimental duties.

(x) *The Army Apprentices' School.* The Army Apprentices' School was opened in 1948 at Balcombe, Victoria, with the aim of training youths as skilled tradesmen for the Australian Regular Army, and to form a background for an Army career with prospects of promotion. The course is open to boys between the ages of 15 and 17 years and provides training in a number of highly skilled trades. A three year course of intensive theoretical and practical work at the Apprentices' School is followed by one year in an appropriate Army workshop or technical unit. At the end of their third year, boys are given their Army trade test and also take the Victorian Apprenticeship

Commission final grade public examinations, which ensures that they will be accepted as qualified tradesmen in civil life when they eventually leave the Army. In addition to trade training, the Apprentices' School provides general educational facilities up to the School Leaving Standard.

(xi) *Army Schools.* Army Schools have been established for the major Arms and Services for the purpose of training officers and other ranks in the up-to-date techniques of their own Arm or Service, to qualify them for promotion requirements, and to produce trained instructors. In addition, a School of Tactics and Administration which has been established at Seymour, Victoria, provides qualifying and instructional courses in current tactical and administrative doctrine for members of all Arms and Services. Courses at Army Schools are conducted for members of both the Australian Regular Army and the Citizen Military Forces.

The following Army Schools have been established :—School of Tactics and Administration ; Armoured School ; School of Artillery ; School of Military Engineering ; School of Survey ; School of Signals ; School of Infantry ; Royal Australian Army Medical Corps School of Army Health ; Royal Australian Army Service Corps School ; Royal Australian Army Ordnance Corps School ; Royal Australian Electrical and Mechanical Engineers Training Centre ; Transportation Training Centre.

(xii) *Rifle Clubs.* The Australian Rifle Club movement, which had its origin in 1888 is provided for in the Defence Act and comprises an Australian Council of State Rifle Associations (which functions in an advisory capacity to the Minister and in the promotion of inter-empire and interstate rifle competitions), State Rifle Associations, District Rifle Club Unions and Rifle Clubs. When placed in recess, the efficient strength of the rifle club movement was 1,018 clubs and 36,478 members. Approximately 20 per cent. of this number served overseas and a further 60 per cent. performed home service duties during the recent war. Rifle shooting activities were resumed in 1946 and the strength position of the movement as at 30th June, 1952 was 1,098 clubs and 51,622 members.

(xiii) *The Australian Battles Nomenclature Committee.* The Minister for the Army gave approval on the 25th July, 1947 for the formation of the Australian Battles Nomenclature Committee to tabulate and classify the operations fought in the Pacific Zones in the 1939–45 War which involved the Australian Military Forces, to define their geographical and chronological limits and to advise the United Kingdom Battles Nomenclature Committee regarding operations in zones other than the Pacific Zone in which the Australian Military Forces participated. Sub-committees were later appointed to study the various campaigns in order to classify the operations into battles, actions and engagements.

3. **Strength of Australian Military Forces.**—The strength of the Australian Military Forces at 31st August, 1952 was as follows :—Australian Regular Army, 20,322 ; Regular Army Special Reserve, 8,747 ; Citizen Military Forces (including National Service Trainees)—effective strength, 50,731 ; Australian Cadet Corps*, 34,873 ; Civilians employed by the Department of the Army,* 5,477.

§ 3. Naval Defence.

1. **State Systems.**—Information regarding naval defence systems prior to 1901 will be found in Official Year Book No. 2, p. 1084.

2. **The Present System.**—(i) *General.* (*a*) *Royal Australian Navy up to end of 1939–45 War.* An outline of the development of Australian Naval policy was given in Official Year Book No. 3, p. 1060 and No. 12, p. 1012. Some account of the building of the Australian Navy, the proposed and modified cost thereof, the compact with the Imperial Government, etc., appears in Official Year Book No. 15, pp. 921 *et seq.* An account of the growth and activities of the Royal Australian Navy during the 1939–45 War is given in Official Year Book No. 36, pp. 1023 *et seq.*

(*b*) *Post-war Programme.* Under the post-war defence policy as extended in July, 1950, the Commonwealth Government had allocated, at 30th June, 1952, more than £147,000,000 for Naval Defence for the period June, 1950 to June, 1953. (*See also* § 1, paras. 4 (i) and (iii) *ante*).

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* At 30th June, 1952.

The following is a summary of the Naval Programme :—

(1) Ships in Commission—

Fleet : It is intended that by the end of the 1950–53 programme, the Fleet should consist of :—

Carrier Force : 2 Light Fleet Carriers, 1 Cruiser, 4 Destroyers.
Escort Forces : 4 Frigates, 1 " Q " Class Destroyer.
Surveying Duties : 2 Survey ships and their tenders.
Training Ships : 2 Frigates, 8 Fleet Minesweepers.
Auxiliary Vessels : 3 Air/Sea Rescue Vessels, 1 Ocean-going Tug, 1 Ammunition Carrier, 3 Boom Defence Vessels, 2 Patrol Vessels, 2 General Purpose Vessels.

(2) In addition to the ships in Commission, a substantial reserve fleet will be maintained in good condition against any future emergency.

(3) Change in Status—On 1st January, 1949 the Royal Australian Navy ceased to be a squadron and assumed the status of a fleet, a fleet being an organization consisting of various types of ships and naval aircraft, capable of undertaking major operations.

(4) Personnel—The strength of the Royal Australian Navy has been pegged at 14,550, comprising 1,400 Officers and 13,150 ratings.

(5) Reserve and National Service Training—Reserve training was resumed as from 1st January, 1950, for members of the Royal Australian Naval Reserve. Training consists of 45 two-hourly drill attendances at night or on Saturdays in naval training establishments in each of the capital cities, plus 13 days' continuous training each year in H.M.A. ships or training establishments, including special schools. In addition, payment is made for further voluntary home training up to a maximum of 12 days. Selected members may undergo special courses up to a limit of six months during the whole of their service in the Reserve, whilst up to 12 months' training or service may be performed in H.M.A. ships or establishments with similar qualifications. Engagements are for three years. Rates of pay have been aligned (with minor modifications) with those applicable to the Permanent Naval Forces. The training for members of the Royal Australian Naval Reserve (Sea-going) is normally 28 days every two years whilst the Royal Australian Naval Volunteer Reserve are under no training obligations.

Naval National Service personnel commenced training on 30th July, 1951. On completion of their 124 days' initial training in naval establishments and H.M.A. ships, personnel will be attached to the Naval Reserve Training Establishment in their State and will carry out 13 days' annual continuous training for the next four years in a manner similar to the members of the Royal Australian Naval Reserve, in order to comply with their National Service liability of five years. The present annual intake of National Servicemen is 1,000.

Revised post-war conditions of service in the Royal Australian Fleet Reserve were introduced as from 13th December, 1950. This Reserve is comprised of two classes, viz. :—

(*a*) former ratings who receive full benefits under the Defence Forces Benefits Act and are required to serve five years in the Royal Australian Fleet Reserve as a consideration for receival of these benefits, and (*b*) former ratings who have previously served in the Permanent Naval Forces of the Royal Australian Navy, Royal Navy or a Dominion Navy subject to a minimum period of three years' service and an absence of not more than five years. No retainer is payable to members under (*a*) and no training is carried out. Members under (*b*) receive an annual retainer of £24 subject to completing 14 days' annual training. Ratings receive pay applicable to Royal Australian Navy personnel whilst under training. No Royal Australian Fleet Reserve training has been carried out since pre-war but will be resumed shortly.

(6) Naval Aviation—The development of the Royal Australian Naval Air Station at Nowra (H.M.A.S. *Albatross*) continues along with plans to develop a naval aerodrome at Schofields, Sydney. The latter will be taken over from the Royal Australian Air Force and commissioned as H.M.A.S. *Nirimbi* on 1st April, 1953. In September, 1951, H.M.A.S. *Sydney* arrived in Japanese waters, relieving H.M.S. *Glory* in the Korean theatre. H.M.A.S. *Sydney* returned to Australia in February, 1952.

(7) Ship Construction and Repair—Provision is made for the maintenance in Australia of a nucleus ship construction and repair industry capable of rapid expansion in time of war. An average sum of £2,500,000 is provided for the completion of the present destroyer programme of six vessels. Two (H.M.A.S. *Anzac* and H.M.A.S. *Tobruk*) are in commission and four are under construction. A programme of six anti-submarine frigates, the conversion of five "Q" Class destroyers to fast anti-submarine frigates and the modernization of H.M.A.S. *Hobart* and three Tribal Class destroyers, have been authorized. Work is in progress on H.M.A.S. *Hobart*, one Tribal and four "Q" Class destroyers.

(8) Shore Establishments—A new base was established at Manus Island (Admiralties) on 1st April, 1950, replacing the New Guinea Base at Dreger Harbour. This new base is now the head-quarters of the Naval Officer-in-Charge, North-East Australian Area.

(c) *The Relation of New Weapons.* Careful consideration has been given to the implications of new weapons, and the decisions in regard to the Navy are based on the broad conclusions of great naval powers that these weapons should be introduced by the normal process of evolution, first into existing ships, and later perhaps into an entirely new form of fighting ship. The same authoritative opinion is of the view that there will be no rapid development which will render vessels such as carriers, cruisers and destroyers obsolete within the near future.

(ii) *Naval Board.* The Australian Navy is administered by a Board consisting of the Minister for the Navy with four Naval Members, including a member for Naval Aviation, one Finance Member and the Secretary, Department of the Navy (ex-officio); the seat of administration is at Melbourne.

(iii) *Naval College.* Fifty Cadet Midshipmen (including one from the Royal New Zealand Navy) entered the Naval College for training in the year commenced January, 1952.

(iv) *Training Establishments.* Flinders Naval Depot, Victoria remains the principal training establishment for ratings in the permanent forces, while several advanced training schools are established in Port Jackson, New South Wales. Air training has begun at Nowra, New South Wales.

(v) *The Australia Naval Station.* Defined limits of the Australian Station will be found in Official Year Book No. 37, page 1152.

(vi) *Foreign Service.* The R.A.N. is represented in Japan by H.M.A.S. *Commonwealth* base establishment in Kure. During the three years commenced 1st July, 1949, H.M.A. Ships *Sydney, Anzac, Bataan, Tobruk, Warramunga, Shoalhaven, Murchison* and *Condamine* have served in the Korean theatre of war.

(vii) *Papua and New Guinea Division of the Royal Australian Navy.* A Papua and New Guinea Division of the Royal Australian Navy, consisting of native ratings, was inaugurated in July, 1951, as a separate part of the Permanent Naval Forces, for employment in Papua and New Guinea and waters adjacent thereto.

(viii) *Transfer of H.M.A.Ships to Royal New Zealand Navy.* During 1951–52, the Australian minesweepers (650 tons displacement),' *Echuca, Inverell, Kiama* and *Stawell* were presented, as free gifts to the New Zealand Government, as a token of the close liaison existing between the Royal Australian Navy and the Royal New Zealand Navy.

3. **Ships of the Royal Australian Navy.**—The following ships were in commission or in reserve in June, 1952:—

SHIPS OF THE ROYAL AUSTRALIAN NAVY, JUNE, 1952.

Vessel.	Description.	Displacement.
In Commission—		Tons.
Sydney	Aircraft Carrier	14,000
Australia	Cruiser	10,000
Anzac	Destroyer	2,325
Tobruk	„	2,436
Bataan	„	1,870
Warramunga	„	1,870
Shoalhaven	Frigate	1,544
Culgoa	„	1,420
Murchison	„	1,544
Macquarie	„	1,420
Condamine	„	1,420
Barcoo (Surveying Ship)	„	1,544
Hawkesbury	„	1,420
Warrego (Surveying Ship)	„	1,060
Latrobe	Ocean Minesweeper	650
Gladstone	„ „	650
Colac	„ „	650
Cowra	„ „	650
Wagga	„ „	650
Cootamundra	„ „	650
Mildura	„ „	650
Lachlan (Surveying Ship), frigate, 1,420 tons, on loan to the New Zealand Navy	..	..
In Reserve—		Tons.
Shropshire	Cruiser	9,870
Quality	Destroyer	1,760
Barwon	Frigate	1,420
Burdekin	„	1,420
Diamantina	„	1,420
Gascoyne	„	1,420
Swan	„	1,060
Ararat	Ocean Minesweeper	650
Bunbury	„ „	650
Bowen	„ „	650
Bundaberg	„ „	650
Benalla	„ „	650
Castlemaine	„ „	650
Deloraine	„ „	650
Dubbo	„ „	650
Glenelg	„ „	650
Gympie	„ „	650
Horsham	„ „	650
Katoomba	„ „	650
Kapunda	„ „	650
Lithgow	„ „	650

SHIPS OF THE ROYAL AUSTRALIAN NAVY, JUNE, 1952—*continued.*

Vessel.	Description.	Displacement.
In Reserve—*continued*—		
Parkes	Ocean Minesweeper	650
Rockhampton	" "	650
Strahan	" "	650
Shepparton	" "	650
Townsville	" "	650
Platypus	Depot Ship	3,455
Under Dockyard Control—		
Hobart	Cruiser	7,100
Arunta	Destroyer	1,870
Quiberon	"	1,760
Quickmatch	"	1,760
Quadrant	"	1,760
Queenborough	"	1,760
Fremantle	Ocean Minesweeper	650
Junee	" "	650
Miscellaneous vessels in commission and reserve—fifty seven	..	..

4. **Strength of Royal Australian Navy.**—The serving strength of the Royal Australian Naval Forces, both permanent and reserves, at 30th June, 1952, was 1,086 officers and 12,677 ratings including 44 native ratings of the Papua and New Guinea Division of the Royal Australian Navy. In addition, eight officers and 205 ratings of the Women's Royal Australian Naval Service were serving and 168 Cadet Midshipmen were undergoing training at the Naval College. Reserve strength (August, 1952) comprised 1,279 officers and 6,253 ratings.

§ 4. Air Defence.

1. **General.**—A statement respecting the preliminary steps taken in connexion with the development of air defence will be found in Official Year Book No. 18, p. 610, and one on the expansion and development, and zones and operations of the Royal Australian Air Force during the 1939–45 War appears in Official Year Book No. 36, p. 1027.

2. **Operations in Korea and Malaya.**—At the conclusion of the 1939–45 War, the R.A.A.F. provided part of the Air Component of the British Commonwealth Occupation Forces in Japan. Soon after the 38th parallel was violated by the North Koreans on 25th June, 1950, No. 77 Squadron in Japan was made available as part of the United Nations Forces opposing this aggression. Within one week from the commencement of hostilities, No. 77 Squadron R.A.A.F., already operationally trained and equipped, had completed its first mission. From that date until June, 1952, the Squadron, operating continuously from different bases in Korea, carried out 3,542 missions, comprising 11,388 individual sorties.

The Squadron is equipped with Meteor aircraft and is employed, as required, on Armed Reconnaissance and Ground Support missions

Australian assistance has been provided, in the form of two R.A.A.F. Squadrons (one transport and one bomber), to the Malayan authorities against Communist bandit action. The first Australian aircraft, a Dakota of No. 38 Squadron, left Darwin on 18th June, 1950. The Lincolns of No. 1 Squadron arrived in July, 1950, and both Squadrons were soon in action. Up till June, 1952, the transport squadron had flown 13,344 hours and the bomber squadron had dropped more than 12,500,000 lb. of bombs during these operations. Working in close co-operation with the ground forces, this bombing is mainly on jungle hideouts frequented by the insurgents. Such bombing and strafing of bandit hideouts calls for extreme accuracy.

3. **Administration and Organization.**—The Department of Air is responsible for policy for organization and control of the Royal Australian Air Force. The Air Board is responsible, subject to approved policy, for the control and administration of the Royal Australian Air Force, and is constituted as follows :—Chief of the Air Staff, Air Member for Personnel, Air Member for Technical Services, Air Member for Supply and Equipment, Citizen Air Force Member and the Secretary, Department of Air.

Head-quarters of the Royal Australian Air Force is located at Melbourne. An Overseas Head-quarters is located at London and an Air Attaché at Washington, U.S.A.

With the exception of certain technical units which form a Maintenance Group, the units of the Royal Australian Air Force are organized in five geographical areas throughout Australia.

The geographical areas of command are :—

Southern Area—Head-quarters Southern Area controls Air Force units in Victoria, Tasmania and South Australia, with certain units in New South Wales.

Eastern Area—Head-quarters Eastern Area controls Air Force units in New South Wales and Southern Queensland.

North-Eastern Area—Head-quarters North-Eastern Area controls Air Force units in northern Queensland, New Guinea and adjacent islands.

North-Western Area—Head-quarters North-Western Area controls Air Force units in Northern Territory.

Western Area—Head-quarters Western Area controls Air Force units in Western Australia.

The organization of the Royal Australian Air Force includes the following types of units :—

(*a*) Formations, comprising a head-quarters unit to control the activities of a number of units at one location. Each formation has a base squadron which provides common services to all units at the location.

(*b*) Flying Squadrons. These bomber, fighter, photographic reconnaissance, transport, target towing and general reconnaissance squadrons undertake the operational and operational training flying commitments of the R.A.A.F.

(*c*) Aircraft Depots. These units specialize in major overhauls, etc., of aircraft, and relieve flying unit ground staff of these commitments.

(*d*) Stores Depots. Stores and equipment ordered by the R.A.A.F. are delivered to these centrally located depots for delivery to units.

(*e*) Flying Training, Ground Training, Navigation, Radio and Air Armament Training Units specialize in the aircrew and ground staff training required by the R.A.A.F.

(*f*) Royal Australian Air Force College. This unit is the training college for officer cadet entrants to the R.A.A.F.

(*g*) Telecommunications Units. These units are responsible for the communications services of the R.A.A.F.

(*h*) R.A.A.F. Staff College. This College trains specially selected R.A.A.F. officers for higher staff and command posts.

4. **Aircraft.**—Some of the aircraft which are at present being used in the Royal Australian Air Force are : Bomber Squadrons—Lincoln and Canberra ; Fighter Squadrons—Mustang, Vampire and Meteor ; Transport Squadrons—Dakota ; General Reconnaissance Squadrons—Lincoln and Neptune ; Tactical Reconnaissance—Mustang and Auster ; Training—Tiger Moth, Wirraway, Mustang, Dakota, Lincoln and Beaufighter.

5. **Establishment.**—The Royal Australian Air Force establishment, as proposed, comprises—(*a*) a Home Defence Organization, (*b*) Task Force elements and (*c*) a Training Organization consisting in all of approximately 16,450 personnel.

6. **Strength of Royal Australian Air Force.**—At 31st August, 1952, the strength of the Royal Australian Air Force was as follows:—Permanent Air Force, 16,202; Citizen Air Force, 2,264; National Service Trainees (in training), 2,946.

§ 5. War Gratuities.

1. **1914–18 War.**—Reference is made in earlier issues of the Official Year Book (*see* No. 15, p. 930) to the bonus payable in accordance with the War Gratuity Acts of 1920 as a war service gratuity to soldiers and sailors who served in the 1914–18 War. Owing to limitations of space this information cannot be repeated, but it may be noted that the gratuity was paid in Treasury Bonds, maturing not later than 31st May, 1924, and bearing interest at 5½ per cent. In necessitous cases payment was made in cash when desired by the person entitled. The first gratuities were made available about the beginning of June, 1920. The total amount paid to 30th June, 1951 was £27,515,036 and bonds amounting to £11,780 had not been redeemed at that date.

2. **1939–45 War.**—Briefly, the War Gratuity Act 1945–1947 provided for payment to members of the Forces of war gratuity (*a*) at the rate of £3 15s. per month of oversea service, subject to a qualifying period of 90 days continuous or 180 days in the aggregate in twelve months, and of certain subsequent periods in Australia, and (*b*) at the rate of 15s. per month of Australian service after 6th December, 1941, subject to a qualifying period of six months' service, other than that for which payment at the oversea rate is made. All members who performed oversea qualifying service were paid a minimum of twelve months' gratuity at the oversea rate, irrespective of whether the full twelve months period had been completed or not.

In cases of death due to war service either overseas or in Australia, where members of the family were totally dependent on the deceased member, a minimum payment equivalent to three years' gratuity calculated at the oversea gratuity rate could be made. In respect of all other cases of death, overseas and in Australia, due to war service, gratuity at the rate accruing to the member at the date of notification of his death was continued for a further seven months.

The period of entitlement to gratuity terminated at the date of discharge or on 30th June, 1947, whichever was the earlier. The bulk of the payments were made on 3rd March, 1951, but in certain circumstances payments were made at earlier dates. Compound interest was allowed at the rate of 3.25 per cent. per annum on the yearly credit balances. For greater detail on the provisions of the Act *see* Official Year Book No. 36, pp. 1073–4.

A Registrar of War Gratuities controls the register in which are kept the accounts of all persons entitled to war gratuity. Provision was made for financing the Act by appropriation from Consolidated Revenue Fund and by borrowing. The War Gratuity

Appropriation Act 1948 created a trust account for the payment of gratuities. Particulars of the operations of this fund during the years 1948–49 to 1950–51 were as follows :—

WAR (1939–45) GRATUITY TRUST FUND.

(£'000.)

Particulars.	1948–49.	1949–50.	1950–51.
Balance brought forward	..	30,051	36,751
Receipts	33,249	9,943	30,630
Expenditure	3,198	3,243	61,447
Balance carried forward	30,051	36,751	5,934

§ 6. The Department of Defence Production.

1. **General.**—The Department of Defence Production was created on 11th May, 1951, when many of the establishments previously administered by the Department of Supply were transferred to the control of the new Department. The basic principle in the re-adjustment was that the Commonwealth Government Factories (including munitions and aircraft establishments, but excluding the Commonwealth Clothing Factory) with the Defence Production Planning Branch, were taken over by the new Department. References to previous operations of the various sections and establishments are given in Official Year Book No. 38, pp. 1,200–9.

2. **Functions of the Department and Acts Administered.**—The functions of the Department of Defence Production, as defined in the administrative arrangements approved by the Governor-General, are :—

(i) The manufacture, acquisition, provision and supply of munitions for the defence forces, that is to say, armaments, aircraft, arms, ammunition, weapons, machine tools, war chemicals, radar (and such other items as may be mutually agreed with the Department of Supply as falling within the definition of munitions), including the materials and plant necessary for the production of those things and all matters incidental thereto, including :—

The receipt from the Service Departments, and other authorities or Departments, of orders and forecasts of requirements of munitions ; appropriate liaison with the Higher Defence Machinery Service Departments and the Department of Supply to deal with Service munitions programmes ; operation and management of factories, workshops, and undertakings concerned in the production of munitions ; arrangements and all action necessary to secure the manufacture, processing and delivery of munitions ; investigations and development of Australian sources of munitions production, including the establishment of annexes or special capacity in industry for that purpose ; acquisition by the Commonwealth and the establishment of factories and workshops for the purpose of producing munitions ; provision and maintenance of stocks of materials and goods for the purpose of producing munitions.

(ii) The employment and training of technicians, workmen and others for the purpose of producing munitions.

(iii) The formation of Industry Advisory Committees to advise the Minister of Defence Production regarding :—

The allocation to industry of production programmes of munitions; the establishing of additional munitions production facilities, including annexes and undertakings; the obtaining of appropriate details of Australian industrial capacity required by the Department of Defence Production in allocating munitions production to industry; any other matters associated with munitions production as specified by the Minister; the provision and control of stores, magazine and similar undertakings required in connexion with production of munitions and for other purposes as required; arrangements for ascertaining costs and the control and limitation of profits in connexion with the production of munitions; the development of inventions originating in Government factories in the interests of defence production.

The Act administered by the Department is the Supply and Development Act 1939–1948.

3. **Defence Production Planning.**—A Defence Supply Planning Branch was established in July, 1950, within the (then) Department of Supply to co-ordinate the planning of expansion of production capacity in the Government-owned factories and in industry. When the Department of Defence Production was created, the Branch was transferred to that Department as the Defence Production Planning Branch.

Broadly, the functions of the Branch are :—(i) to arrange production of requirements for the Defence Services on mobilization; (ii) to plan the expansion of production capacity to meet such requirements in war.

The following production and related sections exist within the Branch :—(*a*) Ammunition; (*b*) Radar and Telecommunications; (*c*) Materials; (*d*) Chemicals and Chemical Engineering; (*e*) Weapons and their Equipment including equipment involving optics; (*f*) Engineer Stores including Mobile Equipment and Small Craft; (*g*) Production Plant and Equipment; (*h*) Instruments; (*i*) Electrical. The production sections have a particular reference to the manufacture of defence stores and components by industry.

The Defence Production Planning Branch is the executive instrument of a Committee of the same name. The three Defence Services, the Departments of Defence, Defence Production, Supply and National Development are represented on the Committee. This enables a close liaison to be maintained with the Departments concerned directly and indirectly with defence in the formation of defence production planning policy.

4. **Munitions Factories.**—Munitions factories now in operation are :—Ammunition—Footscray, Victoria; Explosives—Maribyrnong, Victoria, Mulwala and St. Mary's, New South Wales; Ordnance—Maribyrnong, Bendigo, Echuca, Port Melbourne Marine Engine Works, all located in Victoria; Small Arms—Lithgow, New South Wales.

5. **Aircraft Production.** (i) *General.* All matters relating to the production in Australia of military types of aircraft and aero engines and of other aircraft components required by the Royal Australian Air Force and the Royal Australian Navy are administered by the Division of Aircraft Production of the Department of Defence Production. Aircraft repair and overhaul activities carried out for those Services in civilian establishments, as distinct from Service workshops, are also the function of the Division, together with the responsibility of supplying aircraft spare parts and airborne equipment generally.

(ii) *Aircraft, Engine and Other Production.* As at 1st July, 1952, the approved production programme for the major aircraft manufacturing organizations in Australia comprised Canberra jet-engined light bombers, Lincoln heavy bombers and small radio-controlled jet-propelled target aircraft at the Government Aircraft Factories, Vampire jet fighters and Drover feeder-line transport aircraft at De Havilland Aircraft Pty. Ltd. and Sabre jet-engined fighters and Rolls Royce Nene and Avon turbo-jet engines at Commonwealth Aircraft Corporation Pty. Ltd.

Associated concurrent activities include the production of retractable undercarriages at the Aircraft Engine Factory, propellers for Lincoln aircraft at the Propeller annexe and of heavy forgings in light alloy metals at the Heavy Forge annexe.

(iii) *Design and Development Projects.* Concurrently with the aircraft and aero engine manufacturing programmes, projects involving original design studies in the aircraft and aero engine fields were advanced at the Government Aircraft Factories and at the works of Commonwealth Aircraft Corporation Pty. Ltd. during the year.

At the former, the radio-controlled target aircraft project, covering both piloted and unmanned versions of the aircraft, had been developed to the stage where arrangements were being made for production of the aircraft in quantity while developmental activity was continuing regarding certain features of the design. Further work was done during the year, also on the development of a rotary valve engine.

Work continued during portion of the year on the design and development by Commonwealth Aircraft Corporation Pty. Ltd. of a twin-engined all-weather jet fighter aircraft but this had to be suspended because of the demands made on the Company's staff for the engineering of the modifications to be incorporated in the Australian version of the North American Sabre aircraft, including the installation of the Rolls Royce Avon engine as a replacement for the lower-powered engine in the American Sabre.

Developmental work continued on the light radial type aero engine designed by Commonwealth Aircraft Corporation Pty. Ltd. for use as the power unit for a trainer aircraft and, at 1st July, 1952, the two prototype engines were under test.

(iv) *New Aircraft Projects.*—Approval was given by the Government during 1951–52 for the production by De Havilland Aircraft Pty. Ltd. of a trainer version of the Vampire jet-propelled fighter and by Commonwealth Aircraft Corporation Pty. Ltd. of an elementary trainer aircraft of the Company's own design. Both projects were being pushed ahead rapidly.

(v) *Repair and Overhaul.* The broad policy was continued by the R.A.A.F. of returning to the factories in which they were produced all Australian-made aircraft and aero engines requiring major overhaul and the incorporation of modifications. Repair and overhaul of R.A.A.F. aircraft of other types and of carrier-based aircraft operated by the R.A.N. were undertaken by civilian personnel in the aircraft factories or in the works of contractors specially equipped to handle this type of work.

This policy, together with the production of maintenance spare parts, assisted the factory managements to retain a reasonably balanced nucleus of experienced aircraft tradesmen by supplementing the limited programmes of new aircraft and engine manufacture with repair and overhaul projects.

Lincoln aircraft were being repaired and modified at the Government Aircraft Factories throughout the year. Mustang and Wirraway aircraft and single and twin-row Wasp radial engines and Rolls Royce Nene turbo-jet engines were overhauled by Commonwealth Aircraft Corporation Pty. Ltd. in Melbourne, while Rolls Royce Merlin and Griffon engines and Bristol Centaurus engines from R.A.A.F. and naval aircraft were overhauled by the Company at the Aircraft Engine Factory in Sydney.

De Havilland Aircraft Pty. Ltd. repaired and overhauled Vampire, Mustang and Tiger Moth aircraft and Gipsy Major engines. At the Aircraft Maintenance workshops at Parafield, South Australia, Dakota transports and Wirraway trainer aircraft were being repaired and overhauled during the year.

(vi) *Naval Aircraft.* The repair and overhaul of carrier-based Fairey "Firefly" and Hawker "Sea Fury" aircraft operated by the R.A.N. continued to be handled by the Fairey Aviation Company of Australia Ltd., in Sydney.

6. **Liquidations.**—Over-all realizations on surplus property for the five years ended 30th June, 1951, totalled £20,785,022. For 1949–50 the total was £615,340 and for 1950–51, £299,786.

7. **Finance and Accounts.**—(i) *General.* The expenditure on munitions, munitions factories, aircraft production, etc., during the years 1946–47 to 1950–51 is shown in the tables which follow. The first table shows the total expenditure while the second shows details of expenditure under the various trust funds.

(ii) *Total Expenditure.* The table following shows the total expenditure incurred on account of the departments concerned during the years 1946–47 to 1950–51 inclusive.

MUNITIONS, ETC. : TOTAL EXPENDITURE.
(£'000.)

Particulars.	1946–47.(*a*)	1947–48.(*b*)	1948–49.(*c*)	1949–50.(*b*)	1950–51.(*d*)
Parliamentary Appropriations . .	7,120	7,598	10,631	14,279	(*e*)72,204
Trust Fund Accounts	20,266	19,132	17,159	14,567	30,314
Other	4,549	910	897	*Cr.* 1,001	70

(*a*) Department of Munitions. (*b*) Former Departments of Munitions and Aircraft Production. (*c*) Former Departments of Munitions, Aircraft Production and Supply and Shipping. (*d*) Includes Departments of Defence Production and Supply. (*e*) Includes amount appropriated for Strategic Stores and Equipment Reserve Trust Account.

(iii) *Trust Fund Expenditure.* The table hereunder shows the comparison between expenditure from the various Trust Accounts during the years 1946–47 to 1950–51.

MUNITIONS, ETC. : TRUST FUND EXPENDITURE.
(£'000.)

Fund.	1946–47.	1947–48.	1948–49.	1949–50.	1950–51.(*a*)
Government Munitions Factories and Establishments . .	9,431	8,709	11,311	7,019	10,148
Manufacture of Munitions . .	8,730	5,396	1,581	2,065	4,711
Machine Tools	308	181	16	5	. .
Materials	1,737	411	155	455	163
Aluminium Production . .	60	49	152	349	573
Beaufort Homes	(*b*)	300	1	7	. .
Aircraft	(*b*)	4,086	3,862	3,688	5,621
Minerals Production	(*c*)	(*c*)	81	79	60
Strategic Stores and Equipment Reserve	. .	. .	. .	. .	9,038
Total	20,266	19,132	17,159	14,567	30,314

(*a*) Includes Departments of Defence Production and Supply. (*b*) Department of Aircraft Production. (*c*) Department of Supply and Shipping.

§ 7. The Department of Supply.

1. **General.**—The Department of Supply was formed on 17th March, 1950, when the operations of the Bureau of Mineral Resources, Geology and Geophysics were transferred from the Department of Supply and Development to the Department of National Development, which was created on the same day. On the 11th May, 1951, a large part of the functions of the Department of Supply was transferred to the Department of Defence Production. References to the operations of the Department of Supply and Development are contained in Official Year Book No. 38, pp. 1200–10.

2. **Functions of the Department and Acts administered.**—The functions of the Department and Acts administered by it before the 11th May, 1951, were given in Official Year Book No. 38, pp. 1200–10. Since that date its functions include (*a*) the manufacture, acquisition, provision and supply of services and goods other than "munitions" (that is to say foodstuffs, textiles, clothing, hardware, boots and other like supplies) required by Service and other authorities; (*b*) research and scientific development in relation to war *matériel*, including the operation of the Long Range

Weapons and other defence science establishments ; (*c*) design and associated technical development and inspection of war *matériel* ; (*d*) planning for and procurement of strategic materials ; (*e*) planning and establishment of manufacturing facilities for production of goods other than munitions ; (*f*) formation of industry advisory committees in respect of production and procurement matters ; (*g*) arranging contracts for supply of goods and performance of services ; (*h*) acquisition, maintenance and disposal of stocks ; (*i*) sale or disposal of surplus or unserviceable property (except buildings or land) ; (*j*) production of ingot aluminium by the Australian Aluminium Production Commission ; (*k*) provision of Commonwealth transport facilities ; (*l*) control of atomic energy materials ; (*m*) security service for Supply and Defence Production Departments ; (*n*) arrangements for ascertaining costs and control and limitation of profits on production contracts ; (*o*) co-ordinating estimates, allocation and committment of resources for Defence Supply needs (including munitions) and liaison with the National Security Resources Board ; (*p*) provision and control of stores required for or in connexion with matters administered by the Department of Supply ; general storage for other Departments as required and to the extent facilities are available.

Acts administered by the Department are the Aluminium Industry Act 1944 ; Atomic Energy (Control of Materials) Act 1946–1952 ; Supply and Development Act 1939–1948.

3. **Research and Development Branch.**—(i) *General.* Functions and details of the organization of the Research and Development Branch are contained in Official Year Book No. 38, pp. 1203–6.

(ii) *Long Range Weapons Establishment, South Australia.* At Salisbury, steady progress is being maintained in recruitment of scientific and technical staff. Modifications to existing buildings have progressed and construction is proceeding on the Salisbury airfield. At Woomera, the provision of houses is nearing completion, and technical facilities are well advanced. Trials are proceeding in accordance with the programme agreed with the United Kingdom.

(iii) *Defence Research Laboratories and Aeronautical Research Laboratories.* There has been very little departure from the programme as set out, but there has been a greater concentration on work of a defence nature. A number of new research projects are being undertaken.

(iv) *New Establishments.* Recruitment for new laboratories, namely (*a*) the Electronics Research Laboratory, (*b*) the Propulsion Research Laboratory, and (*c*) the High Speed Aerodynamics Research Laboratory, is proceeding within the limits laid down by Cabinet, and in accordance with funds provided for the year 1952–53. Progress has also been made in connexion with Australian initiated and designed prototypes.

4. **Army Branch.**—The functions of the Army Branch are design and development, and inspection and proof. These functions were transferred to the Department of Supply from the Department of the Army in February, 1950. Since the transfer, Army Branch has been re-organizing to cater for the expansion of the Defence Programme and to supply the technical services required to allow the Army to be equipped with the latest designs of stores and equipment. Consequently the recruiting of personnel and the provision of plant, equipment, and buildings for the Technical Services Establishment of Army Branch has been the main initial objective.

Although deficient in resources, the output of design and development work has been noticeably increased by the introduction of improved methods of management. The following are examples of work undertaken during this period :—Preparations for tropic testing the Centurion Tank on behalf of the Ministry of Supply in the United Kingdom ; design modifications to a large quantity of telecommunications equipment in aid of the Army's repair programme ; investigatory work in conjunction with industry to enable the maximum use to be made in war of commercial type vehicles ; and the use of industry to design important telecommunications equipment.

During the year the Army Branch has provided technical data and information regarding the Army's requirements for equipment.

Inspection and proof activities have increased owing to large Army orders for equipment. Orders for stores to the approximate value of £2,250,000 were received for the attention of the Inspection Service during September, 1951. This increase in activities has made it necessary to increase the examination staff from 400 to 462 during the year. An expansion of the Inspection Service will be necessary to cope with the increasing flow of production orders resulting from the expanded Defence Programme.

5. **Directorate of Contracts.**—(i) *General.* The Directorate of Contracts and its State Organization under the Supply and Development Act 1939–1948 and Regulations is the authority responsible for purchasing supplies or arranging services for the Military, Naval and Air Forces of the Commonwealth. Under this Act and Regulations it is also charged with the responsibility of arranging for the sale or disposal on behalf of the Department of Supply, Defence Production, Navy, Army and Air of all surplus or unserviceable war material, goods and services approved for disposal.

(ii) *Disposals.* The Directorate continues, broadly, the policy developed by the Commonwealth Disposals Commission, which was designed mainly to ensure an orderly disposal of surplus goods at fair market prices.

(iii) *Purchases.* The Directorate purchases supplies and foodstuffs for the Naval, Military and Air Forces as far as possible by public tender, as provided by Treasury Regulations.

(iv) *Administrative Organization.* The Directorate is situated in Melbourne, and the approving authority for the arranging of contracts is the Contract Board, comprising representatives of the Department of Supply, the Department of Defence Production, the Department of the Navy, the Department of the Army and the Department of Air. The Directorate is represented in States other than Victoria by a district organization which also operates in conjunction with a District Contract Board as the approving authority. The table following shows, in respect of the Contract Organization, the purchases and the realizations from disposals for the years 1949–50 and 1950–51.

CONTRACTS ORGANIZATION : PURCHASES AND REALIZATIONS FROM DISPOSALS.

(£.)

State.	Purchases.		Realizations from Disposals.	
	1949–50.	1950–51.	1949–50.	1950–51.
Contract Board, Victoria	12,207,620	40,514,989	1,805,172	1,106,299
District Contract Board—				
New South Wales	4,000,544	5,546,928	572,794	467,496
Queensland	339,148	751,613	228,688	169,118
South Australia	704,107	1,303,990	205,989	99,082
Western Australia	637,735	671,855	125,815	81,695
Tasmania	60,911	86,473	20,359	23,262
Total	17,950,065	48,875,848	2,958,817	1,946,952

6. **Tinplate.**—Throughout the 1939–45 War assured supplies of tinplate were essential to the packaging of foods for Australian and Allied troops. With this objective the Commonwealth Government established a Commonwealth Tinplate Board, comprising representatives of the industrial and departmental interests concerned in the availability of adequate supplies, not only for the canning of foodstuffs, but also for more direct war purposes. This Board was replaced on 31st December, 1946 by the Commonwealth Tinplate Advisory Committee and at the same time a Controller of Tinplate was appointed.

Over the ten years ended 30th June, 1951 Australian consumption of tinplate averaged 110,000 tons per annum. Upwards of 85 per cent. is used for the canning of foodstuffs. Most canning factories run at peak capacity in the fruit-picking season, and keep their key personnel in employment during other months of the year in handling such packs as jam from fruit pulp, soup, vegetables, meat and spaghetti.

Australia's tinplate supplies are drawn from the United Kingdom and the United States of America. Recently small tonnages have been ordered from Japan, but during 1949 plans for the establishment of a tinplate mill at Port Kembla were further advanced. Tinplate is rolled to rigid specifications many months in advance of its permanent use in the form of cans.

Control over the use of tinplate in Australia was abolished on 12th October, 1949, but the services of the Committee are being retained by the Commonwealth for advice in the matter of oversea supplies and distribution in Australia.

7. **Stores and Transport Branch.**—This Branch now functions as the central authority which is responsible for providing all storage and transport facilities necessary to meet the official requirements of Commonwealth Departments and authorities. It has branches in all States and agents in Canberra and Townsville, Queensland.

At the 30th June, 1951, it had under its control land, buildings, plant and machinery valued at over £5,000,000, and 4,000,000 square feet of storage space, of which 3,600,000 was Government-owned and the balance held under tenancy.

8. **Australian Aluminium Production Commission.**—Basic plans for the manufacture of aluminium ingot in Australia were approved by the Commonwealth Government in April, 1941 as a defence measure designed to make this country independent of oversea supplies. In April, 1944 an agreement was made between the Commonwealth and Tasmanian Governments for the establishment of the industry in Tasmania. The Australian Aluminium Production Commission, consisting of two representatives and two deputies acting for the Commonwealth and an equal number of representatives and deputies for Tasmania, was constituted on 1st May, 1945. By legislation passed in 1952, the original fund of £3,000,000 to finance the undertaking was increased to £7,250,000, of which the Commonwealth Government will contribute £5,750,000 and the Tasmanian Government £1,500,000.

Workable deposits of bauxite (aluminium ore) have been proved in New South Wales, Victoria and Tasmania, the largest deposits being located in the Inverell district of northern New South Wales, where reserves exceeding 8 million tons have been brought under Commission control. Reported extensive deposits in the Wessel Islands, off the coast of Arnhem Land, are being investigated. A combined alumina and reduction plant is being erected at Bell Bay, northern Tasmania, to which power will be transmitted from a generating station at Trevallyn, near Launceston. Large quantities of plant and equipment have been purchased, and considerable progress in construction work has been made with the object of completing the project in 1953. The works will have an output of 13,000 tons of ingot annually.

CHAPTER XXVIII.

REPATRIATION.

§ 1. General.

An outline of the activities leading up to the formation of the Commonwealth Repatriation Commission was given in Official Year Book No. 15, p. 931. Some account was given also in the Official Year Book referred to, and in subsequent issues, of the policy and general activities of the Department, while detailed information was incorporated in regard to such matters as sustenance rates and pensions to soldiers and dependants. (*See* Official Year Book No. 17, pp. 598-601.) In 1943 the Australian Soldiers' Repatriation Act was amended by the incorporation of the recommendations of the Parliamentary Committee appointed to inquire into pensions and repatriation benefits. A general increase was made of approximately 20 per cent. in the rates of war pensions and increases were also made in other repatriation benefits.

Under Act No. 34 of 1950, the rates of pension and medical sustenance were increased, and the pensions and benefits under the Act were extended to those members of the Forces (and their dependants) engaged in operations in Korea and Malaya. Provision was also made for payment to a war widow, on re-marriage, of a gratuity equal to one year's war pension.

In addition, an important amendment was a change in the basis of war pensioning. Previously, the basis was the daily rate of service pay, but under the amending legislation the rank, not the pay, of the service man or woman became the basis.

This change was brought about as the result of the increased rates of pay of members of the Forces under the new pay code from 1st July, 1947, and the further increases since then. The constantly rising figure made it evident that the basis of pensioning on the daily rate of pay would be unworkable; for example, the rates of pay of more or less senior officers of the 1914–18 War and of the 1939–45 War, discharged before 1st July, 1947, were less than the new rates of pay for present day lower ranks, with a consequent disparity in the rates of pension.

To avoid this disparity, the daily rate of pay basis—which had been in operation since the original war pension legislation of 1914—was abandoned in favour of the basis of pensioning according to the rank of the member, the basis adopted by other countries.

Under the Statute Law Revision Act of 1950 the title " Australian Soldiers' Repatriation Act 1920–1950 " was amended to " Repatriation Act 1920–1950 ".

The main activities of the Repatriation Commission at 30th June, 1951 were confined to the grant, review and assessment of war and service pensions, the provision of medical treatment, payment of re-employment allowances, vocational training of the more seriously disabled members, the renewal and repair of artificial replacements and surgical appliances, the grant and review of sustenance and living allowances and the administration of the Soldiers' Children Education Scheme.

§ 2. War Pensions.*

1. **General.**—Provision for the payment of war pensions to soldiers and their dependants was made by the Commonwealth Parliament in the War Pensions Act 1914, which came into operation on 21st December, 1914. This Act was repealed in 1920 by the Australian Soldiers' Repatriation Act. Owing to limitations of space, only some of the main features relating to war pensions under the Repatriation Act 1920–1951 are shown in the following paragraphs :—

(i) *Eligibility for Pension.* There has been a considerable widening of the provision in this respect, to the benefit, mainly, of members of the Citizen Military Forces who have not served outside Australia. These provisions are summarized as follows :—

(*a*) A member of the Forces who served (1) outside Australia, (2) in the Territories of Australia, such as Papua and New Guinea, or (3) within Australia in circumstances which can be regarded as actual combat against the enemy, is covered for war pension purposes in respect of incapacity or death which may result from any occurrence happening during the whole period of service.

(*b*) In other cases where a member served only in Australia, incapacity or death to be pensionable must have been attributable to service.

(*c*) There is a third ground applicable to all in (*a*) and (*b*) who have had at least six months' camp service. This provides that, where a condition pre-existed enlistment, a pension may accrue if it is considered that such condition was aggravated by service.

(ii) *Pensions for Incapacity.* Under the amending legislation of 1950 the general rate of pension for a totally incapacitated member of the Forces, ranges, according to members' rank, from £7 to £8 16s. per fortnight. From 2nd November, 1950, the wife of such a member receives a pension of £3 1s., and each child under 16 years of age £1 3s. per fortnight.

If the degree of incapacity is less than 100 per cent. the rates of pension are proportionately lower.

(iii) *Supplementation of Pension.* Where a member in receipt of a pension at the maximum rate is, because of his war disability, temporarily (for at least three months) precluded from earning, an additional pension may be granted that would bring the total pension to a member up to £17 10s. per fortnight.

(iv) *Women's Nursing and Auxiliary Services.* Members of Women's Services are entitled to pensions and other benefits as prescribed in the Act on the same basis as male members of the Forces.

(v) *Tuberculosis.* In the case of a member of the Forces who served in a theatre of war, and, at any time after discharge became or becomes incapacitated, or died or dies, from pulmonary tuberculosis, war pension is payable, and medical treatment is provided on application as if the incapacity or death resulted from an occurrence on service. (*See also* § 3. Service Pensions.)

(vi) *Special Rates.* Those who have been totally blinded as the result of war service and those who are permanently totally incapacitated receive, as from 25th October, 1951, special pensions of £17 10s. per fortnight. In addition to the special pension, an attendant's allowance of £3 per fortnight may be granted to the war-blinded and to certain others who are deemed to be in need of an attendant. A war-blinded member who is also affected with total loss of speech or total deafness is entitled from 2nd November, 1950 to an attendant's allowance of £6 per fortnight in lieu of that referred to above. The wife and any children under 16 years of age receive the same rates as shown in sub-par. (ii).

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* For rates operating since October, 1952, *see* Appendix to this volume.

(vii) *Specified Disabilities.* Where the disability is amputation of a limb or limbs or total loss of vision in one eye, amounts ranging from 15s. to £7 per fortnight are payable as from 2nd November, 1950, in addition to the statutory rate of pension. In addition, allowances of either £3 or £6 per fortnight are payable in certain double amputation cases.

(viii) *Time Limit for Wives and Children Removed.* Prior to the 1950 amending Act, wives who were married and children who were born after 1st July, 1938 were ineligible to receive a war pension. This time limit was removed as from 2nd November, 1950.

(ix) *Rates of Pensions for Death.* (*a*) *Widows.* As already stated, rates of pension were previously based on the daily rate of pay of the member. From 2nd November, 1950, the rate ranges from £7 to £8 16s. according to the rank of the member. In addition to the pension, the widow received an allowance of £1 per fortnight if she had dependent children or if she was over 50 years of age; as from 25th October, 1951, this allowance was increased to £3 4s. per fortnight, and eligibility extended to include a widow who, although under 50 years of age, is permanently unemployable.

(*b*) *Children.* From 2nd November, 1950, the rate of pension for the eldest child (under 16 years of age) was increased to £2 4s. per fortnight, and that of each younger child to £1 11s. In addition to the pension, an amount of 12s. per fortnight may be paid in certain circumstances. Where both parents are dead each child is pensioned at the rate of £4 per fortnight.

(x) *Widowed Mother on Death of Member.* From 2nd November, 1950, a pension ranging from £4 10s. to £8 6s. per fortnight, according to the rank of the member, may be granted to a widowed mother of a deceased unmarried son, provided widowhood occurred either prior to or within three years after the death of the member. The pension may be supplemented by payment of an additional amount constituting the difference between the statutory pension and £8 per fortnight or part thereof, according to the extent of other income of the pensioner. The value of property possessed by the widowed mother does not affect the issue.

2. **Appeal Tribunals.**—The principal Act was amended as from 1st June, 1929 to create tribunals to hear appeals in regard to war pensions. The War Pensions Entitlement Appeal Tribunal is empowered to hear and decide any appeal by or on behalf of ex-members of the Forces or their dependants against a decision of the Repatriation Commission that an incapacity or the death of an ex-member did not arise out of war service. Assessment Appeal Tribunals were created to hear and decide any appeal against a current assessment or a "Nil" assessment of war pension made by the Repatriation Commission in respect of an incapacity of an ex-member of the Forces which had been accepted as arising out of war service. Provision was made by subsequent legislation to enable the Tribunals to hear appeals by certain members for service pensions.

3. **Summary of War Pensions, 1950–51.**—At 30th June, 1951 the number of war pensions for the 1914–18 War was 148,516 and for the 1939–45 War 354,111, and the amounts paid £12,997,634 and £13,192,829, respectively. The outstanding features for 1950–51 for each war were as follows.

WAR PENSIONS: SUMMARY, AUSTRALIA, 1950–51.

Particulars.	1914–18 War.	1939–45 War.	Both Wars.
New claims granted	8,567	39,866	48,433
Restorations	627	1,215	1,842
Claims rejected (gross)	1,480	8,387	9,867
Pensions reviewed	18,519	75,550	94,069
Pensions cancelled or discontinued	3,168	10,515	13,683
Deaths of pensioners	3,782	1,439	5,221
Number of pensions in force at 30th June, 1951	148,516	354,111	502,627
Annual pension liability at 30th June, 1951 £	13,271,144	14,483,436	27,754,580
Amount paid in pensions during the year 1950–51 £	12,997,634	13,192,829	*a*26,191,718

(*a*) Includes £1,255 in respect of the Korean and Malayan operations.

4. **Classes of War Pensions, 1950–51.**—At 30th June, 1951 special rate pensions of £14 per fortnight were being paid to the following classes of members of the Forces :—

WAR PENSIONS: MEMBERS ON SPECIAL RATES, 30th JUNE, 1951.

Class.	1914–18 War.	1939–45 War.	Both Wars.
Blinded members	192	172	364
Tubercular members	889	1,290	2,179
Totally and permanently incapacitated members	6,857	1,857	8,714

The following is an analysis of the total number of new claims granted during 1950–51 :—

WAR PENSIONS: NEW CLAIMS GRANTED, 1950–51.

Class.	1914–18 War.	1939–45 War.	Both Wars.
Members	1,001	8,883	9,884
Wives of members (or husbands of members)	3,258	9,652	12,910
Children	3,962	20,760	24,722
Other dependants	346	571	917
Total	8,567	39,866	48,433

In the following table the number receiving pensions at 30th June, 1951 is shown for each war for each class of pensioner :—

WAR PENSIONS IN FORCE, 30th JUNE, 1951.

Class.	Number of Pensioners.		
	1914–18 War.	1939–45 War.	Both Wars.
Orphan children	1,207	11,328	12,535
War widows	15,670	8,839	24,509
Members	64,889	115,942	180,831
Children	9,002	123,501	132,503
Wives (or husbands)	53,115	87,619	140,734
Parents	4,332	6,681	11,013
Brothers and sisters	115	132	247
Others	186	69	255
Total	148,516	354,111	502,627

5. **Number of War Pensioners and Expenditure, 1950–51.**—The following table shows the number of pensions in force for each war at 30th June, 1951, and the places where payments were made during 1950–51 :—

WAR PENSIONS : NUMBER OF PENSIONERS AND EXPENDITURE, 1950–51.

Where Paid.	War Pensions in Force.				Expenditure. (£.)
	Incapacitated Members of the Forces.	Dependants of Incapacitated Members.	Dependants of Deceased Members.	Total.	
1914–18 War.					
New South Wales ..	21,694	20,726	7,063	49,483	4,641,168
Victoria..	21,576	20,389	6,541	48,506	4,004,016
Queensland	7,385	7,005	1,871	16,261	1,368,969
South Australia	4,369	4,371	1,685	10,425	978,795
Western Australia ..	5,551	5,732	1,602	12,885	993,515
Tasmania	2,861	3,180	852	6,893	673,413
Total, Australia ..	63,436	61,403	19,614	144,453	12,659,876
London Office	1,203	1,342	999	3,544	315,592
Other Oversea Countries ..	250	173	96	519	22,166
Total	64,889	62,918	20,709	148,516	12,997,634
1939–45 War.					
New South Wales ..	44,520	77,161	10,049	131,730	4,805,028
Victoria..	27,539	48,665	7,189	83,393	3,299,140
Queensland	14,534	27,750	3,328	45,612	1,647,149
South Australia	12,511	24,829	2,182	39,522	1,473,397
Western Australia ..	12,114	23,540	2,488	38,142	1,278,860
Tasmania	4,374	9,316	824	14,514	624,077
Total, Australia ..	115,592	211,261	26,060	352,913	13,127,651
London Office	220	309	328	857	51,494
Other Oversea Countries ..	130	165	46	341	13,684
Total	115,942	211,735	26,434	354,111	13,192,829

6. Summary of War Pensions, 1930–31, 1938–39 and 1941–42 to 1950–51.—(i) *Australia.* The following table shows, for each war, the numbers of pensions granted, claims rejected, pensions in force, and the amount paid in pensions in each of the years ended 30th June, 1943 to 1951, and the total war pensions for each of the years ended 30th June, 1931, 1939 and 1942 to 1951 :—

WAR PENSIONS : SUMMARY, AUSTRALIA.

Year ended 30th June—	Pensions Granted.	Claims Rejected.	War Pensions in Force.				Amount paid in Pensions. (£.)
			Incapacitated Members of the Forces.	Dependants of Incapacitated Members.	Dependants of Deceased Members.	Total.	
			1914–18 WAR.				
1943 ..	1,419	1,056	73,387	103,801	22,988	200,176	7,707,612
1944 ..	1,201	1,111	72,232	95,108	22,114	189,454	8,618,138
1945 ..	681	954	70,980	87,048	21,175	179,203	8,633,589
1946 ..	650	552	69,640	79,964	20,381	169,985	8,354,808
1947 ..	811	572	68,375	73,825	19,759	161,959	8,309,448
1948 ..	1,378	717	67,116	68,323	19,863	155,302	8,684,261
1949 ..	1,902	768	66,264	63,937	20,137	150,338	9,761,608
1950 ..	2,547	1,201	65,622	60,141	20,509	146,272	10,429,029
1951 ..	8,567	1,480	64,889	62,918	20,709	148,516	12,997,634
			1939–45 WAR.				
1943 ..	18,352	16,281	7,853	10,479	8,345	26,677	659,384
1944 ..	30,348	34,505	18,126	23,839	13,043	55,008	1,730,471
1945 ..	50,649	41,619	35,766	49,460	16,650	101,876	2,763,796
1946 ..	92,986	66,766	68,097	95,829	25,479	189,405	4,903,409
1947 ..	51,019	31,266	83,995	122,205	26,478	232,678	6,746,192
1948 ..	39,188	13,614	91,657	142,112	26,530	260,299	7,578,512
1949 ..	39,016	8,192	99,852	163,504	26,421	289,777	8,992,884
1950 ..	44,392	7,312	108,922	189,413	26,649	324,984	10,435,150
1951 ..	39,866	8,387	115,942	211,735	26,434	354,111	13,192,829
			BOTH WARS.				
1931 ..	11,555	920	75,316	172,389	35,617	283,322	7,996,180
1939 ..	6,794	7,541	77,151	144,571	27,571	249,293	7,819,289
1942 ..	8,907	9,448	76,641	116,019	27,679	220,339	7,501,911
1943 ..	19,771	17,337	81,240	114,280	31,333	226,853	8,366,996
1944 ..	31,549	35.616	90,358	118,947	35,157	244,462	10,348,609
1945 ..	51,330	42,573	106,746	136.508	37,825	281,079	11,397,385
1946 ..	93,636	67,318	137,737	175,793	45,860	359,390	13,258,217
1947 ..	51,830	31,838	152,370	196,030	46,237	394,637	15,055,640
1948 ..	40,566	14,331	158,773	210,435	46,393	415,601	16,262,773
1949 ..	40,918	8,960	166,116	227,441	46,558	440,115	18,754,492
1950 ..	46,939	8,513	174,544	249,554	47,158	471,256	20,864,179
1951 ..	48,433	9,867	180,831	274,653	47,143	502,627	26,190,463

(ii) *Expenditure and Place of Payment.* The following table shows the amounts paid and place where paid for the years 1945–46 to 1950–51 :—

WAR PENSIONS : EXPENDITURE.

(£.)

Place of Payment.	1945–46.	1946–47.	1947–48.	1948–49.	1949–50.	1950–51.
New South Wales(*a*)	4,874,706	5,663,529	5,984,610	6,713,900	7,392,793	9,446,734
Victoria	3,640,063	4,081,324	4,436,021	5,249,295	5,857,536	7,303,282
Queensland.. ..	1,466,574	1,616,412	1,793,996	2,074,951	2,381,093	3,016,499
South Australia(*b*) ..	1,049,768	1,243,066	1,402,474	1,717,225	1,947,536	2,452,245
Western Australia ..	1,264,951	1,427,953	1,499,821	1,758,028	1,887,885	2,272,533
Tasmania	624,354	726,216	782,474	908,734	1,017,889	1,297,490
Overseas	337,801	297,140	363,377	332,359	379,447	402,935
Total ..	13,258,217	15,055,640	16,262,773	18,754,492	20,864,179	26,191,718 (*c*)

(*a*) Includes Australian Capital Territory. (*b*) Includes Northern Territory. (*c*) Includes £1,255 in respect of the Korean and Malayan operations.

§ 3. Service Pensions.*

1. **General.**—The payment of service pensions is provided for in the Repatriation Act 1920–1951 and has operated since 1st January, 1936.

Originally fixed on a lower scale, the rate of service pension for a member of the Forces now conforms to the rate of the age or invalid pension, which from 1st November, 1951 was £6 per fortnight. The maximum rate for the wife of a member is £3 per fortnight ; the rate for the first child under 16 years of age was increased to 23s. per fortnight and 5s. per fortnight is payable for each of the younger children up to three in number. The actual rate payable in any case is determined after taking into consideration all other income received and property (apart from the home and certain other exempted items) owned by the pensioner, and no service pension can be paid where such other income and/or property exceeds certain specified limits. From 1st November, 1951 the "allowed income" was £234 per annum for a single man and £468 per annum in the case of a member and eligible wife. If a member has property exceeding in value £1,000 (£2,000 for a member and eligible wife), that alone precludes payment of a pension. Pension is assessed according to the amount of income ; if the income from all sources is less than the amount shown above, service pension is assessed at such rate as will, with that other income, bring the total income of the pensioner (including service pension) up to the "allowed income", provided that the pension cannot exceed the maximum rate specified for the particular class of case. If assessable property is held, then a deduction is made from the pension assessed according to income only, the deductions being made at so much for each complete £10 of property in excess of £100 (or £200 in the case of member and eligible wife). The deductions are as follows :—for each £10 from £100 to £450, 9d. per fortnight ; for each £10 of the portion from £450 to £1,000, 1s. 6d. per fortnight.

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* For rates operating since October, 1952, *see* Appendix to this volume.

Female members of the forces were made eligible in 1936 for consideration of service pensions if they embarked for service abroad; previously they must have served in a theatre of war. In the same year an institutional rate of service pension not exceeding 12s. per fortnight was made available. This pension rate from 1st November, 1951 was £2 2s. per fortnight, and benefits particularly inmates of mental asylums, who were previously excluded from the scheme.

Eligibility for service pensions may be established on the following grounds :—

(*a*) Sixty years of age or more, provided the member served in a theatre of war, but eligibility on this ground applies only to the member and not to his wife or children. In the case of a female member of the forces, the qualifying age is 55 years, and service abroad, not necessarily in a theatre of war, is sufficient.

(*b*) Permanently unemployable, provided the member served in a theatre of war (or, in the case of a female member, served abroad). Under this class pensions may be paid to the member, his wife and children—up to four in number.

(*c*) Pulmonary tuberculosis, whether the member served in a theatre of war or not. Under this class, also, pensions are payable to the wife and children—up to four in number.

Only those members who qualify under Class (*c*) are entitled to receive both service and invalid pensions at the same time.

The eligibility of wives and children for service pension is as follows :—

1914–18 War : wife married, or child born, before 2nd October, 1931.

1939–45 War : wife married within 15 years after discharge of member ; any child born of such a marriage.

During the year 1941–42 the scheme was extended to veterans of the South African War 1899–1902, and by amending legislation in 1943 was further extended to members of the Forces of the 1939–45 War.

2. **Operations, 1950–51.**—The following are the important details of the service pension scheme during 1950–51 :—

Claims granted during year—	
Members of the Forces	2,185
Wives	210
Children	33
Total	2,428
Claims rejected during year—	
Members of the Forces	582
Wives	212
Children	4
Total	798
Service pensions cancelled or discontinued during year	1,780
Deaths of pensioners during year	870
Pensions in force at 30th June, 1951	16,512
Annual pension liability on 30th June, 1951	£1,586,039
Amount paid in pensions during the year 1950–51	£1,507,258

3. **Number of Service Pensioners and Expenditure, 1941–42 to 1950–51.**—(i) *Australia.* The following table shows the number of service pensions in force and the expenditure for the ten years 1941–42 to 1950–51 :—

SERVICE PENSIONS : SUMMARY, AUSTRALIA.

Year ended 30th June—	Number of Service Pensions in Force—						Amount Paid in Pensions. (a)
	Age-Members of Forces.	Permanently Unemployable.		Suffering from Pulmonary Tuberculosis.		Total.	
		Members of Forces.	Dependants.	Members of Forces.	Dependants.		
							£
1942 ..	4,294	3,772	4,591	650	939	14,246	579,656
1943 ..	4,270	3,695	4,221	452	646	13,284	660,109
1944 ..	4,235	3,628	4,025	290	406	12,584	652,534
1945 ..	4,437	3,702	3,807	258	362	12,566	648,996
1946 ..	4,971	3,896	3,633	244	345	13,089	804,880
1947 ..	5,894	4,312	3,657	254	358	14,475	904,120
1948 ..	6,610	4,660	3,791	271	358	15,690	1,238,112
1949 ..	7,070	4,613	3,699	271	365	16,018	1,328,955
1950 ..	7,448	4,608	3,598	299	385	16,338	1,431,687
1951 ..	7,456	4,492	3,911	279	374	16,512	1,507,258

(a) Includes amounts in respect of 1939–45 War as follows :—1942–43, £2,314 ; 1943–44, £6,403 ; 1944–45, £7,528 ; 1945–46, £11,372 ; 1946–47, £15,786 : 1947–48, £25,315 ; 1948–49, £30,830 ; 1949–50, £39,757 ; and 1950–51, £53,113.

(ii) *Expenditure and State of Payment.* The following table shows the amounts paid and the State where paid for the years 1945–46 to 1950–51 :—

SERVICE PENSIONS : EXPENDITURE.

(£.)

State of Payment.	1945–46.	1946–47.	1947–48.	1948–49.	1949–50.	1950–51.
New South Wales(*a*) ..	253,274	275,948	446,404	441,541	477,845	515,730
Victoria	206,276	239,650	288,084	322,659	347,274	332,924
Queensland	141,965	155,988	198,257	226,079	247,842	265,754
South Australia(*b*) ..	85,803	102,937	121,638	142,015	142,339	155,384
Western Australia ..	86,339	95,786	144,936	150,375	165,639	184,744
Tasmania	31,223	33,811	38,793	46,286	50,748	52,722
Total ..	804,880	904,120	1,238,112	1,328,955	1,431,687	1,507,258
Includes War (1939–45)	11,372	15,786	25,315	30,830	39,757	53,113

(*a*) Includes Australian Capital Territory. (*b*) Includes Northern Territory.

§ 4. Medical Treatment of Returned Soldiers Suffering from War Service Disabilities.

At 30th June, 1951 there were 5,531 in-patients, including a number whose care was undertaken by the Repatriation Commission on behalf of other countries or Commonwealth Departments. There were 412,235 out-patient attendances for treatment during the year, excluding 397,248 treatments by the 2,770 local medical officers resident in metropolitan and country areas and New Guinea. The expenditure to 30th June, 1951 was £37,921,150.

§ 5. General Benefits and Miscellaneous.

1. Other Departmental Activities.—(i) *General.* Since the outbreak of the 1939–45 War, the ordinary activities of the Department in the way of general benefits for the welfare of members and dependants have continued without interruption. They were mainly education and training of children under the Soldiers' Children Education Scheme, medical benefits for widows and children of deceased members and for widowed mothers of deceased unmarried members, funeral expenses for certain classes of members and dependants, and allowances to certain classes of dependants in lieu of pension.

By amending legislation passed during the 1939–45 War, these benefits were extended for members engaged in that war, and new benefits designed for the re-establishment of members after discharge from the Forces were made available. The re-establishment benefits administered by the Repatriation Commission are :—payments of re-employment allowance while awaiting employment ; provision of tools of trade and equipment where such are necessary to the member's employment ; transportation expenses to meet the cost of fares and removal of household belongings, where a member, or member and family, take up training, employment, a business, or settle on the land ; supplementation of wages of apprentices whose apprenticeships were interrupted by war service ; re-establishment loans to enable members and widows to establish themselves in businesses, practices or other occupations, including (until the Commonwealth Director of War Service Land Settlement began operations early in 1946) agricultural occupations ; payment of re-establishment allowance during the early stages of establishment in business ; gifts up to £75 for furniture to members who are blinded or totally and permanently incapacitated, also to widows with children under 16 years of age ; and free passages to Australia for wives, widows and children of members who married abroad (and passages outward from Australia in certain cases of members and dependants).

The Commission has now taken over the functions of the Re-establishment Division of the former Department of Post-war Reconstruction, and is responsible for the co-ordination of all matters relating to training under the Commonwealth Reconstruction Training Scheme. Re-establishment of the more seriously disabled where ordinary training is not sufficient continues to be an activity of the Commission, and special means have to be found to overcome each problem.

(ii) *Review of General Benefits.* The following paragraph gives particulars (number of cases and expenditure) of the more important general benefits over the period from 8th April, 1918 to 30th June, 1951.

(*a*) *Employment*—

1914–18 *War :* Number of applications, 251,200 ; Expenditure—sustenance while awaiting employment, £1,768,000 ; tools of trade and fares, etc. (gift), £554,000 ; tools of trade (loan), £21,800.

1939–45 *War :* The placing of members in employment was carried out by the Commission for only a short period prior to the inauguration of the Department of Labour and National Service, but the Commission has the responsibility of payment of re-employment allowance, provision of tools of trade and payment of fares and removal expenses. Number of cases and expenditure to 30th June, 1951 are as follows :—Re-employment allowances—66,620, £1,026,750 ; tools of trade (gift)—259,594, £1,876,050 ; (loan)—19,196, £282,997 ; fares and removal expenses, —15,638, £225,196.

(*b*) *Vocational Training*—

1914–18 *War :* Number of members completed training in full-time courses, 27,696 ; expenditure, £4,849,600.

1939–45 *War :* Members completing apprenticeships—12,611, £3,856,008.

(*c*) *Business Loans*—

1914–18 *War :* 6,130, £421,800.

1939–45 *War :* 26,626, £6,682,467. Allowances pending productivity of business—1,266, £76,727. Fares and removal expenses to member proceeding to a business, £495.

(*d*) *Furniture Grants*—

1914–18 *War:* Expenditure—gift (to members blinded or totally and permanently incapacitated and to widows), £75,190; loan (to other classes of members), £1,031,570; total number of cases, 35,400.

1939–45 *War:* Gift (no loan cases)—widows, 5,577, £382,322; members, 350, £22,706.

(*e*) *Free Passages*—

1914–18 *War:* £509,120.

1939–45 *War:* To Australia—4,762, £309,965; from Australia—67, £9,995.

(*f*) *Soldiers' Children Education Scheme*—

Main Scheme: Full-time training as from 13 years of age.

Particulars.		1914–18 War.	1939–45 War.
Applications		31,497	8,682
Approved		29,833	8,513
Completed training		23,582	3,170
Withdrawn during training		4,021	323
Awaiting next stage of training		42	123
In training		2,188	4,897
Expenditure	£	3,032,471	519,533

Minor benefits prior to entrance to main scheme: 1914–18 War, £39,317; 1939–45 War, £26,098.

(iii) *Total Expenditure on General Benefits.* The total expenditure on general benefits, apart from war and service pensions, from 8th April, 1918 to 30th June, 1951, was as follows:—1914–18 War, £33,850,529 (including loan, £1,676,014); 1939–45 War, £34,242,187 (including loan, £6,974,570). Of the grand total of £68,092,716, the largest amounts were absorbed by medical treatment with £37,921,149, vocational training with £8,779,256, and expenses of providing employment, £5,827,775.

2. **Expenditure of Repatriation Commission, 1950–51.**—The expenditure of the Commission for the year ended 30th June, 1951 was £38,096,193, distributed as follows:—

		£
Repatriation benefits—		
Loans to members		591,498
Grants to members and general expenditure (including maintenance of training schools, medical institutions, etc.)		7,239,427
Assistance to members in necessitous circumstances		2,580
Allowances to dependants of members not provided for under the Act		301
Total		7,833,806
Soldiers' Children Education Scheme		184,226
War and Service Pensions		27,532,254
Administrative costs—	£	
Salaries	2,202,923	
Contingencies	342,984	
		2,545,907
Grand total		38,096,193

3. **Settlement on the Land of Returned Service Personnel.**—Reference to the settlement on the land of returned service personnel of both the 1914–18 and 1939–45 Wars will be found in Chapter IV.—Land Tenure and Settlement.

CHAPTER XXIX.

MISCELLANEOUS.

§ 1. Patents, Trade Marks and Designs.

1. **Patents.**—(i) *General.* The granting of patents is regulated by the Commonwealth Patents Act 1903–1950, which, in regard to principle and practice, has the same general foundation as the Imperial Statutes, modified to suit Australian conditions. The Act is administered by a Commissioner of Patents. Fees totalling £10 are sufficient to obtain letters patent for the Commonwealth of Australia and the Territories of Papua, New Guinea and Norfolk Island. Renewal fees are payable as follows :—£1 before the expiration of the fifth year and an amount progressively increasing by ten shillings before the expiration of each subsequent year up to the fifteenth, when the fee becomes £6. If a renewal fee is not paid when it becomes due, an extension of time up to twelve months may be granted on grounds specified in the Act, and subject to the payment of prescribed fees. An amendment to the Act in September, 1946 permits the public to inspect an application, complete specification and provisional specification (if any) after the complete specification has been lodged. Previously, specifications were made public only after an application had been accepted, in many cases as much as a year after the date of lodgment.

(ii) *Summary.* The number of separate inventions in respect of which applications were filed during the years 1939 and 1946 to 1950 is given in the following table, which also shows the number of letters patent sealed in each year :—

PATENTS : AUSTRALIA.

Particulars.	1939.	1946.	1947.	1948.	1949.	1950.
No. of applications ..	5,740	9,072	8,358	7,709	6,724	7,051
No. of applications accompanied by provisional specifications	3,161	4,321	3,727	3,302	3,174	3,359
Letters patent sealed during each year	3,141	1,901	2,773	3,381	3,550	3,115

(iii) *Revenue.* The revenue of the Commonwealth Patent Office during the years 1939 and 1946 to 1950 is shown hereunder :—

PATENTS : REVENUE, AUSTRALIA.

(£.)

Particulars.	1939.	1946.	1947.	1948.	1949.	1950.
Fees collected under Patents Act	45,581	83,871	90,278	92,500	85,972	95,089
Receipts from publications ..	1,828	2,293	2,100	2,000	1,826	1,260
Total	47,409	86,164	92,378	94,500	87,798	96,349

2. **Trade Marks and Designs.**—(i) *Trade Marks.* Under the Trade Marks Act 1905-1948 the Commissioner of Patents is also Registrar of Trade Marks. This Act has been amended from time to time, the last amendment having been made in 1948. Special provisions for the registration of a "Commonwealth Trade Mark" are contained in the Act of 1905, and are applicable to all goods included in or specified by a resolution passed by both Houses of Parliament that the conditions as to remuneration of labour in connexion with the manufacture of such goods are fair and reasonable. The Act of 1948 provides for the registration of registered users of trade marks, and also for assignment of trade marks with or without the goodwill of the business concerned.

(ii) *Designs.* Under the Designs Act 1906–1934 the Commissioner of Patents is also Registrar of Designs.

(iii) *Summary.* The following table shows the applications for trade marks and designs received and registered during the years 1939 and 1946 to 1950 :—

TRADE MARKS AND DESIGNS : AUSTRALIA.

Applications.	1939.	1946.	1947.	1948.	1949.	1950.
RECEIVED.						
Trade Marks	1,992	4,142	4,041	3,724	3,732	3,796
Designs	865	1,544	1,256	990	948	1,187
REGISTERED.						
Trade Marks	1,580	1,649	2,447	2,386	1,165	1,003
Designs	736	771	879	1,005	962	304

(iv) *Revenue.* The revenue of the Trade Marks and Designs Office during the years 1939 and 1947 to 1950 is shown hereunder :—

TRADE MARKS AND DESIGNS : REVENUE, AUSTRALIA.

(£.)

Particulars.	1939.			1947.			1948.			1949.			1950.		
	Trade Marks.	Designs.	Publications.	Trade Marks.	Designs.	Publications.	Trade Marks.	Designs.	Publications.	Trade Marks.	Designs.	Publications.	Trade Marks.	Designs.	Publications.
Fees collected under Commonwealth Acts ..	15,951	1082	19	26,913	1552	10	28,708	1228	20	20,673	1386	18	24,472	1371	10

No fees in respect of trade marks have been collected under State Acts since 1922.

§ 2. Copyright.

1. **Legislation.**—Copyright is regulated by the Commonwealth Copyright Act 1912–1935 wherein, subject to modifications relating to procedure and remedies, the British Copyright Act of 1911 has been adopted and scheduled to the Australian law.

Reciprocal protection of unpublished works was extended in 1918 to citizens of Australia and of the United States of America, under which copyright may be secured in the latter country by registration at the Library of Congress, Washington. The Commonwealth Government promulgated a further Order in Council which came into operation on 1st February, 1923, and extended the provisions of the Copyright Act to the foreign countries of the Copyright Union, subject to the observance of the conditions contained therein.

2. **Applications and Registrations.**—The following table shows under the various headings the number of applications for copyright received and registered, and the revenue obtained for the years 1939 and 1946 to 1950 :—

COPYRIGHT : AUSTRALIA.

Particulars.	1939.	1946.	1947.	1948.	1949.	1950.
Applications received—						
Literary	1,438	1,613	1,571	1,585	1,380	1,476
Artistic	53	66	63	30	36	57
International	3	..	..	..	..	..
Applications registered—						
Literary	1,359	1,291	1,674	1,272	1,229	1,372
Artistic	38	69	66	20	28	68
International	1	..	..	..	..	..
Revenue .. £	411	438	432	404	339	373

§ 3. Lord Howe Island.

Lord Howe Island is situated in latitude 31° 30′ south, longitude 159° 5′ east, about 436 miles north-east of Sydney, and has an area of 3,220 acres. The climate is mild and the rainfall abundant, but on account of the rocky formations of its surface only about 300 acres are suitable for cultivation, most of which are devoted to the production of Kentia Palm Seed. The land belongs to the Crown and is occupied rent-free on sufferance.

Discovered in 1788, the Island was first settled by a small party of Maoris in 1853 ; afterwards a colony was settled from Sydney. Constitutionally the Island is a dependency of New South Wales and is included in King, one of the electorates of Sydney. A Board of Control at Sydney manages the affairs of the Island and supervises the palm seed industry. The population was 179 at the Census of 30th June, 1947.

§ 4. Commonwealth Scientific and Industrial Research Organization.

1. **General.**—By the Science and Industry Research Act 1949, the previously existing Commonwealth Council for Scientific and Industrial Research was reorganized under the title of the Commonwealth Scientific and Industrial Research Organization. An account of the organization and work of the former Council, and of the earlier Commonwealth Institute of Science and Industry from which the Council was formed, was given in earlier issues of the Official Year Book. (*See* No. 14, p. 1061 and No. 37, p. 1183.)

2. **Science and Industry Research Act 1949.**—This Act provides for—

(*a*) an Executive of the Organization consisting of five members to be appointed by the Governor-General, at least three of whom shall be persons possessing scientific qualifications ;

(*b*) an Advisory Council of the Organization consisting of the members of the Executive, the Chairman of each State Committee constituted under the Act, and such other members as the Advisory Council, with the consent of the Minister, co-opts by reason of their scientific knowledge.

The powers and functions of the Organization are as follows :—(*a*) To initiate and carry out scientific researches in connexion with primary or secondary industries in Australia ; (*b*) to train research workers and to establish industrial research studentships and fellowships ; (*c*) to make grants in aid of pure scientific research ; (*d*) to establish and make grants to industrial research associations in any industry ; (*e*) to test and standardize scientific apparatus and instruments ; (*f*) to collect and disseminate scientific and technical information ; (*g*) to publish scientific and technical reports and periodicals ; and (*h*) to act as a means of liaison between Australia and other countries in matters of scientific research.

3. **Science and Industry Endowment Act 1926–1949.**—Under this Act, the Government established a fund of £100,000, the income from which is used to provide assistance (*a*) to persons engaged in scientific research ; and (*b*) in the training of students in scientific research. Provision is made for gifts or bequests to be made to the fund, which is controlled by a trust consisting of the Executive of the Organization. In accordance with the Act, arrangements have been made to send a number of qualified graduates abroad for training in special fields of work.

4. **Work of the Organization.**—The activities of the Commonwealth Scientific and Industrial Research Organization have necessitated a widespread and adaptable arrangement of its research laboratories. Undesirable centralization has been avoided mainly in two ways. In the first place, the policy has been followed of establishing laboratories in different places in the Commonwealth wherever the necessary facilities, contacts and other suitable conditions could best be found. Secondly, the Act provides for the establishment of a State Committee in each of the six States. These Committees are widely representative of scientific and industrial interests, and advise the Executive or the Advisory Council on general matters and on particular questions of investigation and research.

For about twelve years after its establishment, the work of the previous Council was devoted mainly to the solution of problems affecting the agricultural and pastoral industries. Unlike manufacturing concerns, which can often employ their own scientific staffs, the farmers and the pastoralists are dependent on outside help for the solution of their problems which require research. It was a recognition of the greater need of the primary producer which directed the Council's early policy. However, in 1937, the Commonwealth Government decided to extend the activities of the C.S.I.R. so as to provide assistance to secondary industries, and several laboratories have been established for work in that field ; it was thus in the fortunate position of being able to render to these industries assistance of vital importance almost immediately after the outbreak of war. In fact, the remarkable technological advances and developments in secondary industrial production during the war would to a large extent have been impossible had it not been for the assistance rendered by scientific research, and this may well serve as a forceful illustration of what may be accomplished in times of peace.

For the purpose of carrying out its research work there are established within the Organization a number of Divisions and Sections. The Divisions, of which there are now fifteen, comprise the major establishments for which special laboratory buildings have been erected and equipped ; the Sections generally include establishments which have not reached a stage of development, so far as the scope and magnitude of their operations are concerned, to justify their designation as Divisions. As the Organization's investigations extend on a Commonwealth-wide basis and as many of the investigations which are being conducted—particularly those concerned with problems affecting the agricultural and pastoral industries—necessitate experimental work in the field, a number of field stations have been established in various parts of Australia.

The Divisions which have been established are as follows :—

(1) Plant Industry, with main laboratories at Canberra and field stations.
(2) Entomology, with main laboratories at Canberra and field stations.
(3) Animal Health and Production, with main laboratories in Melbourne and Sydney and field stations.

(4) Biochemistry and General Nutrition, with main laboratories at Adelaide and field stations.

(5) Soils, with main laboratories at Adelaide and extensive operations in the field.

(6) Forest Products, with main laboratories in Melbourne and field experiments.

(7) Food Preservation and Transport, with main laboratories at Homebush. New South Wales, and a subsidiary laboratory in Brisbane.

(8) Fisheries, with main laboratories at Cronulla, New South Wales, subsidiary laboratories in Perth, Western Australia, Dunwich, Queensland and Thursday Island, and experimental work in coastal waters of Australia.

(9), (10), (11) Metrology, Physics and Electrotechnology, comprising the National Standards Laboratory at Sydney.

(12) Radiophysics, with main laboratory at Sydney.

(13) Industrial Chemistry, with laboratories in Melbourne.

(14) Tribophysics, with laboratories in Melbourne.

(15) Building Research, with laboratories in Melbourne.

The following are the Sections :—

(1) Commonwealth Research Station, Murray Irrigation Area, Merbein, Victoria.

(2) Irrigation Research Station, Griffith, New South Wales.

(3) Radio Research Board, Sydney.

(4) Dairy Research, Melbourne.

(5) Mathematical Statistics, Adelaide.

(6) Mineragraphic Investigations, Melbourne.

(7) Ore-dressing Investigations, Melbourne and Kalgoorlie.

(8) Flax Research, Melbourne.

(9) Atomic Physics, Melbourne.

(10) Physical Metallurgy, Melbourne.

(11) Meteorological Physics, Melbourne.

(12) Wool Textile Research Laboratories, Geelong, Melbourne and Sydney.

(13) Oenological Research, Adelaide.

(14) Coal Research, Sydney.

(15) Mathematical Instruments, Sydney.

(16) Wildlife Survey, with main laboratory in Canberra, subsidiary laboratory at Albury, and field experiments.

(17) Land Research and Regional Survey, with headquarters in Canberra, and field stations at Ayr (Queensland), Katherine (Northern Territory) and Ivanhoe (Kimberley, Western Australia).

In addition to its investigational work, the Organization maintains an Information Service which deals with inquiries covering a wide range of scientific and technical subjects. Since the outbreak of war in 1939 Scientific Research Liaison Offices have been established in London and Washington.

Recently an Agricultural Research Liaison Section was established at Head Office to assist in making the Organization's results in agricultural research speedily available in State Departments of Agriculture for use in their extension work.

The Organization's Head Office, with administrative and executive staff, is in Melbourne, and associated with it are the Organization's Information Service, Central Library, Agricultural Research, Liaison Section and Central Experimental Workshops. The funds for the Organization are provided from two main sources, viz., from Commonwealth revenue by Parliamentary appropriation, and from industry directly or indirectly by way of contributions and special grants. The fact that contributions and grants account for over one-eighth of the total annual expenditure indicates that C.S.I.R.O. has succeeded in a very large measure in gaining the confidence of the public.

The activities of C.S.I.R.O. are now so comprehensive in their scope and so widely distributed that it is not an easy matter to present in a concise form an adequate picture of them. For details of the investigations in progress reference should be made to the Annual Report of the Organization.

§ 5. Australian Institute of Anatomy.

1. **Foundation of Institute.**—The Australian Institute of Anatomy, situated in Canberra, occupies a monumental building erected by the Commonwealth Government under the Zoological Museum Agreement Act of 1924. Prior to the passing of this Act, the Commonwealth Government had expressed regret that the Australian nation possessed neither a collection of specimens of the unique and fast disappearing fauna of Australia, nor a museum in which such specimens could be preserved for future generations. Comparative anatomy is the basis of medical science, and while the importance of a study of Australian animals in the solution of various medical problems had for years been recognized by other countries and steps taken by them to procure specimens for their museums, national effort in this direction was neglected in Australia. The late Sir Colin MacKenzie, the first Director of the Institute of Anatomy, however, very kindly presented to the Commonwealth Government his entire private collection, and this magnificent gift was acquired and provision was made for its proper housing under special legislation by the Commonwealth Government. In 1931 the Institute became an integral part of the Commonwealth Department of Health.

2. **Additions to Original Collection.**—In addition to the original collection, which has been greatly augmented, the following gifts have been made to the Australian nation, and are on view in the Institute :—

(1) *Horne-Bowie Collection.*—Dealing with the life of Central Australian aborigines and throwing valuable light on the psychology of this Stone Age people.

(2) *Burrell Collection.*—This deals with the life history of the platypus, and is unique in the world. The platypus is the most primitive mammal known to science, and is the link between the bird, the reptile and the mammal.

(3) *Milne Collection.*—This is an anthropological and ethnological collection dealing with the aborigines of New South Wales, and contains many valuable and now unobtainable native weapons and implements.

(4) *Murray Black Collection* of anatomical material representative of the aborigines of Southern Victoria and the River Murray.

(5) *Nankivell Collection*, illustrating the anatomy of the aborigines of the Murray Valley.

(6) *Harvard University Collection.*—This includes a collection of specimens from the Harvard University, U.S.A., representing a carefully worked out epitome of archaeology of the United States of America, and, together with two rare skeletons of primitive North American Indians, was a goodwill gift from the University to the Institute of Anatomy.

(7) *The Sir Hubert Murray Collection.*—The ethnological and osteological collection of the late Sir Hubert Murray, formerly Lieutenant-Governor of Papua. This deals especially with the anthropology of Papua.

(8) *The Rabaul Ethnological Collection.*—This concerns chiefly the ethnology of The Trust Territory of New Guinea.

(9) *The Basedow Collection.*—This collection was purchased by the Commonwealth Government. It deals especially with the anthropology of Central and Northern Australia and was assembled, after many years of research, by the late Dr. Herbert Basedow of Adelaide, who was formerly Protector of Aborigines.

(10) *The Crowther Collection* of stone artifacts of the extinct Tasmanian race. This collection was a gift of Dr. W. E. L. H. Crowther of Tasmania.

(11) *Keith Goddard Australian Ethnological Collection.*—This collection has been donated by Mr. R. H. Goddard of Sydney and represents an important ethnological collection dealing with the aborigines of the Northern Territory. It includes also some specimens from the Pacific Islands.

(12) Many hundreds of specimens and books received from numerous interested scientists, the most outstanding being those from Mr. E. Hill, of Nagambie, Victoria; Mrs. Harry Burrell, New South Wales; and medical books for the Library from the estates of the late Drs. Molloy, David Grant and Robert Stirling.

3. **Endowments for Orations and Lectures.**—In addition to the aforementioned donations of material, there have been several endowments for orations and lectures as follows:—

(1) *The Anne MacKenzie Fund.*—Founded with a gift of £1,000 by the late Sir Colin MacKenzie in memory of his mother. The interest from the fund to be used to arrange for an oration or symposium to be delivered or held from time to time as circumstances warrant. The purpose of the lecture or symposium is to emphasize the importance of the prevention of disease.

(2) *The Kendall Lecture in Veterinary Science.*—Endowed by the sons of the late Dr. W. T. Kendall who was the founder of the first Veterinary School in the Southern Hemisphere.

(3) *The Charles Mackay Fund.*—Endowed by Miss C. Mackenzie with a gift of £607 as a memorial to her grandfather, an educationalist, who arrived in Melbourne in 1852 and died at Kilmore, Victoria. The purpose of the fund is to arrange a lecture or symposium known as the Charles Mackay Lecture or Symposium to be held from time to time as circumstances warrant. The lecture or symposium is to deal with the history of medical science.

4. **The Scope of the Institute.**—The building occupies a site which adjoins that reserved for the Australian National University.

The Institute consists of two separate and distinct entities. Portion of the original collection of anatomical specimens assembled by the late Sir Colin MacKenzie is arranged in two large museums which are open to the general public. The material in these museums has been arranged so as to present simple lessons in human hygiene as well as to display the anatomical features and especially the peculiarities of Australian fauna.

The remainder of the building houses research units which are studying problems in the biological and medical sciences. The large collections of bony anatomical material donated by Murray Black have provided most interesting and valuable data on aboriginal diseases.

In 1938, following upon the retirement due to ill-health of Sir Colin MacKenzie, the activities of the Institute were extended to interpret more fully the ideas of the founder. In the later years of his life Sir Colin had been keenly interested in the relationship of nutrition to the development of the child. In recent years the work of the staff has developed in laboratory and field research in problems of nutrition, and this work is being continued and developed, particularly in association with the Institute of Child Health of the Commonwealth Department of Health, situated at the Sydney University.

§ 6. Commonwealth Observatory.

1. **Foundation of Observatory.**—The Observatory was founded primarily to prosecute astrophysical research, including the study of the relations between solar and terrestrial phenomena. A short history of the foundation of the Observatory appears in Official Year Book No. 19, p. 979.

2. **Site of Observatory.**—The Observatory is situated on Mount Stromlo which forms part of a ridge of hills about seven miles west of Canberra. The highest point in the ridge is 2,560 feet above sea level, that is, about 700 feet above the general level of the surrounding country.

3. **Equipment.**—Some of the major items of astrophysical equipment have been obtained through the generosity of private donors. Thus a 30-inch reflector was donated by the late J. H. Reynolds, Esq.; a 9-inch refractor was presented by the late Mr. James Oddie; and the trustees of the late Lord Farnham made available a 6-inch refractor. Other major equipment comprises a solar tower telescope with an 18-inch coelostat and a 3-inch reversible transit instrument. The Observatory was the successful tenderer at a public sale for the purchase from the Victorian Government of the long disused 48-inch reflector of the now closed Melbourne Observatory. This instrument is being modernized by conversion into a Schmidt Gregorian telescope with a 50-inch primary mirror. A 74-inch reflector has been nearly completed in the works of Sir Howard Grubb Parsons and its installation at Mount Stromlo will be completed shortly.

4. **Functions of Observatory.**—Investigations in the fields of stellar spectroscopy, stellar photometry, and variable stars are being carried out. In addition to covering the type of astrophysical research for which the Observatory was founded, the field of work has been extended to include experimental and theoretical investigations of the ionosphere, and the determination of time. The observatory is now responsible for the accuracy of the Australian Time Service. Considerable attention is being given to the development of this work, and a highly accurate quartz clock system has been installed.

§ 7. Standards Association of Australia.

The Standards Association of Australia is the national standardizing organization of Australia, and issues Australian standard specifications for materials and codes of practice.

The Association was established in July, 1929 by the amalgamation of the Australian Commonwealth Engineering Standards Association and the Australian Commonwealth Association of Simplified Practice. It is an independent body in close touch with modern industrial requirements and has the full recognition and support of the Commonwealth and State Governments and industry.

The sole executive authority of the Association is vested in the Council on which industry is fully represented, together with official representatives of the Commonwealth and State Governments and their technical departments, and of scientific, professional and commercial organizations. Voluntary assistance is rendered in the drafting of specifications and codes by more than 4,500 individuals who are experts in their particular fields, and are organized into more than 500 committees. These committees are grouped under an internationally established classification, covering civil engineering and building construction, mechanical engineering, electrical engineering, automotive industry (including aircraft), transportation, naval architecture and marine engineering, shipbuilding, ferrous metallurgy, non-ferrous metallurgy, chemical industry, textile industry, mining, agriculture, wood industry, pulp and paper industry, glass and pottery, dairying industry, medical and dental, household and domestic economy, miscellaneous and general.

These committees are comprised of nominated representatives of manufacturing, distributing and purchasing organizations, and of scientific and other expert authorities in the particular field of the project being dealt with. The operations of these committees are co-ordinated and supervised by committees broadly representative of the whole industry, according to the foregoing classification, within which the respective projects are included.

The specifications of the Association provide a suitable standard of performance, quality and dimension and an equitable basis for tendering. They help to eliminate redundant qualities and sizes. They enable purchasers to obtain their requirements with greater assurance of satisfaction, with more rapid delivery and without the necessity of drafting individual specifications.

The underlying principles covering the preparation of the specifications and codes are that they shall be in accordance with the needs of industry; that the common interests of producer and consumer be maintained; that periodical revision should keep the work abreast with progress; and that standardization be arrived at by general consent without coercion.

Organizations, companies, firms and individuals interested in the work of the Association are eligible for subscription membership. Members are entitled to free copies of the publications of the Association and to the use of the library and its Special Information Service. Bibliographical research is undertaken for committees, members of the Association, and industry in general. Many hundreds of inquiries are answered each year.

The Association has international affiliations and the standards of all British and foreign countries are filed in the library and are accessible to members. It also administers the Australian National Committees of the International Electrotechnical Commission, the World Power Conference and the International Commission on Large Dams. The Association is also a member, representing Australia, of the International Organization for Standardization (I.S.O.).

The Association is also the representative of the British Standards Institution, and all British standards may be purchased from head-quarters and branch offices in the various States.

The head-quarters of the Association are at Science House, Gloucester-street, Sydney, and branches of the Association are situated at Temple Court, 422 Collins-street, Melbourne; Sparkes Building, 183 Wickham-street, Valley, Brisbane; Alliance Building, Grenfell-street, Adelaide; Gledden Building, Hay-street, Perth; c/o Engineering Department, Hobart Technical College, Hobart; Department of the Interior, Canberra; and Howard Smith Chambers, Watt-street, Newcastle.

§ 8. Film Censorship.

1. **Legislation.**—The censorship of imported films derives its authority from Section 52 (*g*) of the Customs Act, which gives power to prohibit the importation of goods. Under this section, regulations have been issued prohibiting the importation of films except under certain conditions and with the consent of the Minister. The regulations provide, *inter alia*, that no film shall be registered which in the opinion of the Censor is (*a*) blasphemous, indecent or obscene; (*b*) likely to be injurious to morality, or to encourage or incite to crime; (*c*) likely to be offensive to the people of any friendly nation; (*d*) likely to be offensive to the people of the British Empire; or (*e*) depicts any matter the exhibition of which is undesirable in the public interest.

The regulations governing the exportation of Australian-made films are similar, with the addition that no film may be exported which in the opinion of the Censorship is likely to prove detrimental or prejudicial to the Commonwealth of Australia.

The Censorship consists of a Censorship Board of three persons and an Appeal Censor, the head-quarters being in Sydney. There is also a right of appeal to the Minister.

In addition to the censorship of moving pictures, the Censorship may refuse to admit into Australia any advertising matter proposed to be used in connexion with the exhibition of any film. In regard to films and advertising matter produced in Australia, legislation of a uniform nature is now operative in all States except South Australia. Under the State legislation the Commonwealth Film Censorship Organization acts as censor for the States concerned by virtue of agreements entered into between the Commonwealth and the respective State Governments.

2. **Import of Films.**—Imported standard size (35-millimetre) films dealt with by the Censorship for the year 1950 were as follows:—1,293 films of 3,086,252 feet passed without eliminations and 112 films of 708,766 feet passed after eliminations, making a total of 1,405 films of 3,885,018 feet. There were no rejections. The countries of origin were as follows:—United States of America, 723 films of 2,738,955 feet; United Kingdom, 402 films of 713,813 feet; and 280 films of 432,250 feet from other countries.

The films which chiefly concern the censorship are the feature or dramatic films. Of these, 407—3,145,451 feet were imported during 1950 (316—2,374,161 feet from the United States of America and 63—527,136 feet from the United Kingdom). Three hundred and three—2,344,265 feet were passed without eliminations and 104—801,186 feet were passed with eliminations. Feature films in the four years 1947 to 1950 have been dealt with as follows :—

How Dealt With.	1947.	1948.	1949.	1950.
Passed without eliminations	303	295	309	303
Passed with eliminations	35	40	90	104
Rejected in first instance	4	6	1	..
Total	342	341	400	407
Absolute rejections	1	3	1	..

There were also imported, during 1950, 4,047 miniature films (16 millimetres) of 2,586,869 feet and 1,696 miniature films (9.5 and 8 millimetres) of 566,501 feet. Four 8-millimetre films and one 16-millimetre film were rejected.

3. **Export of Films.**—The number of films exported for the year 1950 was 986 of 1,248,112 feet, of which 678 films of 1,016,648 feet were sent to places in the British Empire, including Trust Territories.

§ 9. Australian National Film Board and the Film Division.

1. **The Australian National Film Board.**—The Australian National Film Board was inaugurated in April, 1945, on the recommendations of a Commonwealth Government inter-departmental committee which considered the suggestions of a conference of interested individuals and Commonwealth and State officials, including Directors of Education, called in November, 1944 by the Ministers for Information and Post-war Reconstruction. It was attached, for administrative purposes, to the Department of Information.

With the abolition of the Department of Information, in March, 1950, administration of the Board was transferred to the News and Information Bureau, Department of the Interior.

In November, 1950, the Board was reconstituted as an advisory body to the Minister for the Interior on matters concerned with the production, distribution and acquisition of film required by Commonwealth departments for the following purposes :—

(*a*) for use within Australia on important matters of national interest and welfare, such as school and adult education, rehabilitation, social development, international understanding, trade and tourist expansion, and immigration ;

(*b*) for dissemination abroad to expand trade and commerce with other countries, encourage tourist traffic with Australia, improve Australia's relations with other countries and, where necessary, to explain Australia's national policies, and to encourage immigration.

The constitution provides for a membership of ten, with the Secretary of the Department of the Interior, Chairman, the Director of the News and Information Bureau, Deputy Chairman, and the remainder representative of Commonwealth Departments, State Government instrumentalities and organizations interested in the production, distribution or utilization of films for national publicity.

2. **The Film Division of the News and Information Bureau.**—Production and distribution of all films required by Commonwealth Departments is undertaken by the staff of the Film Division, News and Information Bureau, Department of the Interior, or by commercial enterprises under the supervision of officers of the Film Division. Theatrical distribution in Australia, and both theatrical and non-theatrical distribution overseas, of all Film Division productions is organized by the News and Information Bureau's home office or its oversea representatives. Non-theatrical distribution in Australia is organized by the National Library, Canberra, in co-operation with State film distribution agencies.

The first Australian Government organization for the production of motion pictures for national publicity purposes was the Cinema and Photographic Branch of the Department of Commerce, set up in Melbourne in 1920. Early in World War II, the newly established Department of Information was made responsible for the operation of the Cinema Branch and for an Official War Photography Unit. Film exposed by war photographers was processed by commercial laboratories in Sydney, and copies were processed by the Cinema Branch, which also undertook the production of copies of training and entertainment films required by the instructional and amenities sections of the armed services in the South-West Pacific.

In March, 1946, most of the processing equipment of the Cinema Branch was destroyed by fire. A small laboratory was improvised in Melbourne to process 16-mm. prints, but the major work of the Film Division was carried out in commercial establishments in Sydney. After two years of dispersal the Film Division obtained tenancy of a building at Burwood from the Education Department of New South Wales. By remodelling, it was converted into sound studios, editing rooms, recording control rooms and offices. Only one of the Division's sections is not housed in these Burwood Studios—the Australian Diary Unit, which is based on the News and Information Bureau's offices at 18–20 York-street, Sydney. Replacement of the 35-mm. equipment lost in the 1946 fire has not been made, and processing of this gauge of film is done by commercial film laboratories.

Since 1946, the Film Division has produced 162 films for general exhibition, as well as training and special purpose films. Prints are dispatched to 32 oversea centres where distribution is arranged by News and Information Bureau officers or other Australian representatives. In Britain, there is regular distribution through more than a thousand theatres, and a large non-theatrical and educational series of circuits. In the United States of America there is wide non-theatrical distribution and considerable use of the films by television networks. An exchange arrangement with the National Film Board of Canada secures extensive distribution in Canada. French versions, prepared in Paris under the supervision of the Australian Embassy, circulate through France and French-speaking countries. Selected films have also been recorded in Dutch, German, Italian, Japanese, Hindustani, Tamil and other Indian dialects.

In addition to films made on the initiative of the News and Information Bureau, the Film Division has produced, or is producing, films under the sponsorship or with the co-operation of the Departments of Army, Civil Aviation, Commerce and Agriculture, Defence, External Affairs, Territories, Shipping and Transport, Health, Immigration, Labour and National Service, Navy, Postmaster-General, Supply, and Treasury ; and the Commonwealth Bank of Australia, Public Service Board, C.S.I.R.O., the Commonwealth Office of Education, the Road Safety Council, Overseas Telecommunications Commission, Repatriation Commission, Snowy Mountains Hydro-electric Authority, and Australian Wine Board.

The co-operation of the Australian motion picture industry with the Commonwealth, spontaneously offered at the outset of World War II, continues. Special films for urgent national appeals are planned, produced and distributed with the assistance of the National Films Council of the motion picture industry and its Film Production Advisory Committee.

§ 10. The Australian Broadcasting Control Board.

The Australian Broadcasting Act 1942–1946 was amended in 1948 to provide for the establishment of the Australian Broadcasting Control Board. The amending Act was assented to on 6th December, 1948, and subsequently proclaimed to commence on 15th March, 1949.

The principal functions of the Board, which operates under the Ministerial jurisdiction of the Postmaster-General, are set out in section 6K of the Act as follows :—

(*a*) to ensure the provision of services by broadcasting stations, television stations and facsimile stations, and services of a like kind, in accordance with plans from time to time prepared by the Board and approved by the Minister ;

(*b*) to ensure that the technical equipment and operation of such stations are in accordance with such standards and practices as the Board considers to be appropriate ;

(*c*) to ensure that adequate and comprehensive programmes are provided by such stations to serve the best interests of the general public.

In addition, the Board may exercise such other functions as are prescribed by regulation in relation to broadcasting stations, television stations and facsimile stations.

In the exercise of its functions in respect of programmes, the Board is required—

(*a*) to consult the Australian Broadcasting Commission and representatives of licensees of commercial broadcasting stations in relation respectively to the programmes of the national and commercial broadcasting services ; and

(*b*) in particular to—

  (i) ensure reasonable variety of programmes ;

  (ii) ensure that divine worship or other matter of a religious nature is broadcast for adequate periods and at appropriate times, and that no matter which is not of a religious nature is broadcast by a station during any period during which divine worship or other matter of a religious nature is broadcast by that station ;

  (iii) ensure that facilities are provided on an equitable basis for the broadcasting of political or controversial matter ;

  (iv) determine the extent to which advertisements may be broadcast in the programme of any commercial broadcasting station ;

  (v) fix the hours of service of broadcasting stations, television stations and facsimile stations.

The Board is empowered to make recommendations to the Minister as to the exercise by him of any power under Division 1 of Part III. of the Act, which prescribes the conditions under which licences are granted to commercial broadcasting stations.

The Board also has power, subject to the directions of the Minister—

(*a*) to determine the situation and operating power of any broadcasting station, television station or facsimile station ;

(*b*) to determine the frequency of each broadcasting station, television station or facsimile station, within bands of frequencies notified to the Board by the Postmaster-General as being available for such stations ;

(*c*) after consultation with the Commission to determine the conditions upon which a commercial broadcasting station may broadcast a programme of the National Broadcasting Service ;

(*d*) to regulate the establishment of networks of broadcasting stations and the making of agreements or arrangements by licensees of commercial broadcasting stations for the provision of programmes or the broadcasting of advertisements.

Subject to the approval of the Minister and of the Treasurer, the Board may provide financial and other assistance to commercial broadcasting stations for the purpose of ensuring that programmes of adequate extent, standard and variety are provided in the areas served by these stations.

In addition to prescribing the functions of the Board as set out in section 6K of the Act, the amending Act of 1948 also transferred to the Board certain powers which had previously been exercised by the Minister in connexion with the general control of the broadcasting service, particularly in relation to the operations and programmes of commercial stations.

Section 6B of the Act provides that the Board shall consist of three members appointed by the Governor-General, one of whom shall be chairman. The Board was constituted on the 15th March, 1949.

Section 6B of the Act provides that no person shall be appointed as a member of the Board who—

(*a*) has any financial interest, whether direct or indirect, in any company which is the licensee of a commercial broadcasting station or manufactures or deals in equipment for the transmission or reception of broadcasting, television or facsimile programmes ;

(*b*) is a member of the governing body of any company or other association of persons which is the licensee of a commercial broadcasting station ; or

(*c*) is the licensee of a commercial broadcasting station.

§ 11. Australian Broadcasting Commission.

1. **General.**—The Australian Broadcasting Commission was established under the Australian Broadcasting Commission Act 1932 to take over control of national broadcasting with the object of raising the standards of broadcasting in Australia. Control of the A.B.C. is vested in seven commissioners (originally five), one of whom is an officer of the Treasury and one an officer of the Postmaster-General's Department, and its income is derived from an annual government grant. (For information about the original method of finance *see* earlier issues of the Year Book.) Technical services are provided by the Postmaster-General's Department.

Broadcasting in Australia is a compromise between the system in operation in Great Britain and that in the United States, and the duty of the A.B.C. is to maintain the standards of radio without either dictating to its listeners or playing down to the lowest tastes. The activities of the Commission according to its several departments are described in the following paragraphs. The proportion of broadcasting time allocated on the twelve metropolitan stations during 1950–51 to each department was as follows :—Music—Classical and light classical, 23.3 per cent., light music, 16.0 per cent., total music, 39.3 per cent. ; Variety, 16.5 per cent. ; Drama, 5.4 per cent. ; Children's Session, 2.1 per cent. ; Youth Education, 3.0 per cent. ; Talks, 6.9 per cent. ; Parliament, 2.9 per cent. ; Religion, 3.6 per cent. ; News, 7.5 per cent. ; Sport, 5.3 per cent. ; Rural Services, 1.8 per cent ; Non-departmental, 5.7 per cent.

2. **Music.**—The A.B.C. is today the biggest concert-giving organization in the Commonwealth, and the immense growth of interest in music in this country is illustrated by the fact that Australian listeners in increasing numbers now welcome the opportunity of hearing fine music on the air and in the concert hall and have magnificently supported the presentation of orchestral concerts and of recitals by the best musicians from their own country and from overseas. In 1936 small regular orchestras were formed by the A.B.C. in Sydney, Melbourne, Adelaide, Brisbane, Perth and Hobart, and from these foundations have grown our present orchestras. Those in Sydney and Melbourne measure up to first class orchestras overseas, whilst those in the other capital cities are showing rapid improvements and are now the equal of those in many places of comparable size in Europe or America. Until 1946 the financing of these orchestras was the sole responsibility of the A.B.C., but since then arrangements have been made in all States for State government and municipal bodies to bear part of their cost ; in

South Australia the cost is partly met by donations from the public. This close co-operation between a broadcasting organization, city authorities and State Governments to establish and maintain symphony orchestras is unique in the world.

In 1951, the A.B.C. organized 508 public orchestral concerts (including 121 free concerts for school children) and 179 public recitals throughout the Commonwealth (including band recitals, chamber music groups, etc.).

The policy of the A.B.C. so far as individual artists are concerned has always been to develop local talent and at the same time give its audiences the opportunity of hearing famous international musicians.

3. **Drama and Features.**—Drama programmes are designed to give listeners opportunities, which they might not otherwise have, of hearing the great plays of all nations as well as adaptations of the best modern stage plays and also those written specially for broadcasting. The main regular drama programmes are broadcast on Saturday and Monday evenings and special series of longer plays are also given at various times during the year.

In recent years the technique of the feature programme has also been developed in this country. The feature is a form of entertainment which is unique to radio, consisting of specially written programmes designed to present information in an interesting way, and it may deal with a very wide variety of subjects ranging from history and current events to science and the arts. A number of Australian writers have become interested in this new form of entertainment and about 95 per cent. of the features broadcast are written by Australians. Local writers also contribute a large proportion of the plays broadcast and every effort is made to assist and encourage their work.

4. **Youth Education.**—The A.B.C. provides a regular series of broadcasts to schools as an addition to normal class-room education. The total number of listening schools at the end of 1951 was 7,100 or nearly 71 per cent. of all schools, State and private, throughout the Commonwealth. Many of the school broadcasts are presented in dramatized form, as this method makes the material more vivid and interesting to the young listener. For the very young children, the Commission broadcasts every weekday the " Kindergarten of the Air ", a type of broadcast which originated in Australia.

5. **Talks.**—The aim of the Talks Department is to provide programmes which will keep the listener well informed on current affairs and on general and historical topics. Many of the talks in the first category are now presented in a magazine type of session consisting of a number of short items linked by a narrator. This form of programme has proved popular with listeners but has by no means replaced the straight talk which usually runs from ten minutes to a quarter of an hour.

Two sessions which are designed to encourage discussion are the " Nation's Forum of the Air ", and the talks designed for listening groups. In the former, a topic of a controversial nature is discussed by four speakers before a studio audience. After their initial speeches, the speakers are questioned by members of the audience or by local listeners who send their questions by telephone. In the talks to listening groups, supplementary material relating to the broadcasts is provided for groups of listeners, organized by the A.B.C., who meet in their homes or elsewhere to discuss points arising from the broadcast.

6. **Rural Broadcasts.**—The Rural Broadcasts Department was commenced in 1945 to serve the needs of country listeners. It has proved to be of great value to men and women on the land throughout Australia, by giving them the latest market reports and information on general conditions, and by keeping them informed on rural development overseas. The interstate market report is the only Australia-wide market service available to the Australian rural population. Programmes are exchanged with radio organizations in England, Canada, the United States and elsewhere, and several visits to Australia by well-known farm radio personalities have also been arranged. The department has encouraged the work of Junior Farmers' Clubs in Australia, and has sponsored competitions for members in connexion with the Royal Agricultural Shows in Sydney and Melbourne. These competitions are to be extended to encourage international co-operation in this important work.

7. **News.**—On 1st June, 1947, the A.B.C.'s independent News Service came into full operation. Since that date the Commission has collected the news for its bulletins independently of the press and it now has, in addition to a large staff throughout Australia, a London news room for the selection and transmission of oversea news secured from the great news agencies. Nine national news bulletins are broadcast daily, and are followed by State bulletins of news of State interest. In addition, two regional bulletins are broadcast by local stations in country areas. The Commission also re-broadcasts, by arrangement with the British Broadcasting Corporation, two oversea news bulletins each day.

8. **Other Activities.**—The broadcasting of the proceedings of Federal Parliament commenced as a regular service in July, 1946, and Australian listeners are now able to hear full debates from the House of Representatives, and occasionally from the Senate. At present these broadcasts are confined to one of the two transmitters in each capital city, but it is hoped that eventually country listeners will also be able to hear them.

The Children's Session is presented on each weekday for children between the ages of 7 and 17. An important feature of this session is the Argonauts Club which children may join, and which encourages its members to contribute to the programmes and to do creative work such as painting, needlework, writing, etc. Part of the children's session is regularly devoted to an exchange of opinion on topical questions by members of the Argonauts Club.

In co-operation with the various religious denominations, the A.B.C. broadcasts several religious sessions each week day in addition to those given on Sundays. These religious broadcasts include relays of normal church services and a variety of special programmes of talks and sacred music. The modern trend towards the use of religious drama is also followed.

The A.B.C.'s variety and sporting programmes provide the lighter side of listening to the public. In its variety sessions the A.B.C. does everything possible to assist local artists in order to increase the amount of first class talent in this country. The Commission's dance bands in Sydney and Melbourne provide the accompaniment for the more important variety shows broadcast in these states, and are regarded as being two of the most outstanding bands in Australia.

The A.B.C.'s coverage of sport at home and abroad is comprehensive. On Saturday afternoons the sporting panel provides listeners with the progress results and scores, and also descriptions from half a dozen or more fields of sport. Events of international interest such as Test Matches, the Davis Cup, etc., are covered by simultaneous descriptions from A.B.C. commentators. In covering events overseas, the A.B.C. is indebted to the B.B.C. for its collaboration in Great Britain, and to the New Zealand Broacasting Service for events in New Zealand.

9. **Transmission Services.**—In December, 1951, the A.B.C.'s home programmes for Australian listeners were transmitted by 42 medium-wave and eight short-wave stations, and its oversea programmes were transmitted by four short-wave stations, two of which are of 100 kW. power and one of 50 kW. The 51 stations in operation at 30th June, 1950 are shown in Chapter V.—Transport and Communication, § 6. Radio Telegraphy and Telephony. Three medium-wave stations have come into operation since that date—4QA Mackay, 4GM Gympie and 5LN Port Lincoln. The domestic short-wave stations are used for giving service to listeners in the sparsely populated parts of Australia, and in New Guinea and adjacent islands, while the other short-wave stations are directed to listeners overseas. Thirty of the medium-wave stations are situated outside the capital cities, and further regional stations are to be constructed. When these additions have been made, the medium- and short-wave stations together will provide for clear reception of the Commission's programmes in practically every part of Australia.

§ 12. National Safety Council of Australia.

The National Safety Council of Australia was founded in Melbourne in 1927 for the purposes of developing, mainly by means of education, safety on the road, at work and in the home, and its activities have developed in other directions wherever the need for reducing the toll of accidents has been shown. To this end it conducts continuous propaganda through the press and in other ways. It also forms Junior Safety Councils in the schools for developing a safety conscience among children. The children themselves are officers of these Councils and patrol the roads in the neighbourhood of the schools and conduct the scholars across in safety. Posters are available to schools in connexion with Health and Safety lessons. Films specially taken are available for children's and home safety instruction.

A "Safe Driving" campaign for individual motor drivers is conducted as well as a "Freedom from Accidents" competition among employee drivers, those completing a year free from any accident for which they are responsible being given a certificate to that effect. An industrial service of four posters per month, together with slips for pay envelopes, constitutes a regular service for the dissemination of safety advice, and was supplied to over 100,000 workers in factories last year. Committees deal with specific problems regarding traffic, films, safety in industry, air safety and home dangers. The Air Safety Committee has issued a 32-page booklet "Air Sense" for distribution with pilots' private licences through the Civil Aviation Department, and has a plan for assistance to aircraft in distress which is being implemented throughout Australia.

The Council is supported by Government grants, public subscription and sales of service, and is a non-profit organization. Its work is carried on by a small paid staff controlled by committees and governed by an executive. The following committees, whose work is of an entirely honorary nature, are in operation, namely, Executive, Traffic, Industrial Safety, Home, Air Safety and Propaganda.

§ 13. Australian Road Safety Council.

1. **Origin and Organization.**—The Australian Road Safety Council was formed in June, 1947, through the instrumentality of the Australian Transport Advisory Council.

The prime movers for the establishment of the Council were the Australian Automobile Association, which submitted a comprehensive plan; the New South Wales Minister for Transport, who advocated expansion, on a nation-wide basis, of road safety activities on lines similar to those of the Road Safety Council of New South Wales; and the National Safety Council of South Australia, which conveyed recommendations from a Special Safety Convention held in Adelaide in 1946.

At that time, in addition to the above-mentioned organizations in New South Wales and South Australia, there was also a road safety organization in Victoria. Steps were immediately taken to form Councils in Queensland, Western Australia and Tasmania, and subsequently for the internal Territories.

The Australian Road Safety Council is the composite body of Road Safety Councils of the following States and Territories (internal) of Australia :—

Governmental.—New South Wales, Road Safety Council of New South Wales; Queensland, Road Safety Council of Queensland; Tasmania, Road Safety Council of Tasmania; Australian Capital Territory and Northern Territory, Road Safety Councils of Australian Capital Territory and Northern Territory.

Non-Governmental.—Victoria, Victorian Road Safety Division, National Safety Council of Australia; South Australia, Road Safety Division, National Safety Council of South Australia; Western Australia, Road Safety Division, National Safety Council of Western Australia.

The Council is representative, geographically and technically, of the whole Commonwealth, and comprises nominees of practically all classes of road users, together with representatives of road transport and police administrations from each State. National organizations represented on the Council are:—The Federal Chamber of Automotive Industries, Council of Fire and Accident Underwriters, Australian Road Transport Federation, Australian Automobile Association, Transport Workers' Union of Australia, Federation of Motor Cycle Importers and Distributors of Australia, and Auto Cycle Council of Australia.

The Council meets annually, and an Executive Committee operates between conferences. Special committees on education, public relations and films meet as required.

An annual grant of £100,000 is made available by the Commonwealth Government under the Commonwealth Aid Roads Act. Of this, £60,000 is allocated to the State road safety councils for local activities, and the remaining £40,000 is applied to the national campaign. This is supplemented by assistance, financial and otherwise, by State Governments, and indirectly by commercial organizations.

2. **Mode of Operation.**—The role of the Australian Road Safety Council is primarily in the field of education and public relations. Its task is to increase public awareness of the seriousness of the road accident problem, which, in the year ended June, 1952, resulted in 68,110 accidents involving casualties or damage in excess of £10 to property, the deaths of 2,054 persons and injuries to 38,376 persons. (For further information on the subject of Traffic Accidents *see* pp. 180–2 of this Year Book.)

The Council works in close collaboration with two other committees also established by the Australian Transport Advisory Council, namely, the Australian Motor Vehicle Standards and the Australian Uniform Road Traffic Code. All three committees are administered by the Commonwealth Department of Shipping and Transport, which is the executive department for the Australian Transport Advisory Council. The Australian Motor Vehicle Standards Committee develops essential basic motor vehicle standards, such as maximum lengths, weights, height, carrying capacity of vehicles, and minimum lighting, braking and other mechanical efficiencies. In addition to ensuring a greater safety factor, these standards will eliminate many conflicting State requirements which had an adverse effect on design and production costs. The Australian Uniform Road Traffic Code Committee is charged with the responsibility of progressively preparing a "blue print" uniform national traffic code for incorporation in State legislation. Speed limits, right hand turns, rules governing approaches to intersections, qualifications of drivers, pedestrian behaviour, are a few of the numerous aspects which come within its purview.

The campaign for road accident prevention resolves broadly into three main elements relating to (i) the Road User, (ii) the Road, and (iii) the Vehicle. Similarly, the attack falls into three main divisions—(i) Education, (ii) Enforcement, and (iii) Engineering. The link between the components is, broadly:—

The Road User	Education (public relations media, instruction in schools, homes, etc.). Enforcement (of correct road usage—through the police and the courts, uniform traffic laws, etc.).
The Road .. The Vehicle ..	Engineering (technical improvements of all kinds, safer roads and vehicles, improved illumination, uniform vehicle standards, etc.).

§ 14. Australian Shipbuilding Board.

1. **General.**—It is the policy of the Commonwealth Government to foster the shipbuilding industry in Australia, to preserve this vital industry and to assist in building up the Australian coastal fleet. In order to bring the cost of the vessels built in Australian yards for sale to private shipping companies into parity with United Kingdom costs, a subsidy of up to 25 per cent. has been granted. The Australian Shipbuilding Board is now under the control of the Department of Shipping and Transport. The head office of the Board is in Sydney.

2. **Construction Programme.**—The programme now consists of:—13 "A" Class, 9,000 D.W.T. freighters; 12 "B" Class, 6,000 D.W.T. freighters; 10 "D" Class, 3,000 D.W.T. freighters; 5 "E" Class, 700 D.W.T. freighters; 2 "U/S" Class, 3,000 D.W.T. freighters; 2 "D/A" Class, 3,000 D.W.T. freighters; 1 motor collier of 2,000 D.W.T.; 2 colliers of 4,800 D.W.T.; plus a number of small vessels and non-trading vessels of various types.

AUSTRALIAN SHIPBUILDING BOARD: SUMMARY OF CONSTRUCTION OF MERCHANT VESSELS OVER 200 TONS GROSS AS AT 30th SEPTEMBER, 1951.

Class.	Completed.	Under Construction.	Not yet commenced.	Total.
"A" (River)	13	.. .. ..	.. .. ..	13
"B" ..	6	5 { 2 Evans, Deakin & Co. 2 Mort's Dock & Eng. Co. 1 B.H.P., Whyalla ..	1 Evans Deakin & Co. (a)	12
"D" ..	9	1 State Dockyard, Ncstle.	.. .. ..	10
"E" ..	5	.. .. ..	.. .. ..	5
"U/S" ..	1	1 State Dockyard, Ncstle.	.. .. ..	2
"D/A" ..	..	2 State Dockyard, Ncstle.	.. .. ..	2
Motor Collier	..	1 Evans Deakin & Co. ..	.. .. ..	1
Colliers ..	..	.. .. ..	2 (Not decided) ..	2
Total ..	34	10	3	47

(a) Now changed to a collier.

§ 15. Commonwealth Disposals Commission.

Particulars of the constitution and functions of the Commonwealth Disposals Commission, its policy and procedure and an outline of its activities were given in Official Year Book No. 37 (*see* pp. 1194–6), and a summary of the realizations of the Commission during the five years of its existence was shown on pages 1206–7 of Official Year Book No. 38. Information regarding the liquidation of the Commission appears on p. 1259 of this issue.

§ 16. Rent Control.

Particulars of Commonwealth rent control operations during the 1939–45 War and subsequently, up to the return of controls to the States in August–September, 1948, will be found in earlier issues (*see* Official Year Book No. 37, pp. 1197–1200 and No. 38, pp. 1233–4).

§ 17. Housing Division.

Information on the Commonwealth Housing Division from its inception in July, 1945 until its transfer from the Department of Works and Housing to the Department of National Development in March, 1950 will be found in Official Year Book No. 38, pp. 1234–5.

§ 18. War Service Homes.

The provision of War Service Homes, formerly a function of the Department of Works and Housing, is now a function of the Department of Social Services, and the administration of the War Service Homes Act is under the immediate control of the Director of War Service Homes.

The War Service Homes Act 1918–1951 is a measure for the provision of homes for Australian soldiers who served during the 1914–18 War or during any war in which His Majesty became engaged on or after 3rd September, 1939, including, subject to the statutory provisions of the Act, service in Korea or Malaya; also to the female dependants of Australian soldiers and other classes of eligible persons as defined in the Act. Assistance may be granted to an eligible person and the wife or husband of that person, as the case may be, as joint tenants.

The maximum amount of loan or advance which may be granted under the Act is £2,750 for building cases and £2,000 in respect of other classes of available assistance and periods of repayment may be approved up to 45 years; in the case of a widow or widowed mother of an Australian soldier this may be extended to a maximum of 50 years.

The War Service Homes Division does not provide homes for occupation on a purely tenancy basis.

Since the inception of operations under the War Service Homes Act (figures in parentheses indicate cases where eligibility has been established and assistance granted as a result of service during the 1939–45 War) 92,269 (45,227) applications have been approved; 33,027 (11,186) homes have either been built, or assistance to build them has been given; 33,063 (19,198) homes have been purchased; and 9,425 (6,140) mortgages have been discharged. The total number of homes provided under the War Service Homes Act to 30th June, 1951 was 75,515, including 36,524 to persons who served during the 1939–45 War.

In addition, the Division had approved of 8,950 transfers and resales, of which 1,081 were in respect of persons whose eligibility had been established as a result of service during 1939–45.

During 1950–51, 14,838 (14,183) applications were approved; 4,022 (3,888) homes were either built or assistance to build them was given; 8,660 (8,256) homes were purchased; and 2,483 (2,411) mortgages were discharged. The total number of homes provided during the financial year 1950–51 was 15,165 (14,555). Transfers and resales approved numbered 414 (346).

At 30th June, 1951, 5,034 homes, including 2,467 group projects, were in course of construction; 1,267 contracts, of which 264 were for group homes, had been let but work not started; and 1,532 tenders, including 459 for group homes, had been called but not finally dealt with. The majority of these homes are being provided for persons who served during the 1939–45 War.

The total capital expenditure from inception to 30th June, 1951 was £86,874,688, including £25,071,548 for 1950–51. The capital expenditure for 1950–51 includes unexpended advances as at 30th June, 1951. Receipts from inception to 30th June, 1951 amounted to £49,077,502, including £4,854,757 during 1950–51. Of the total receipts, £24,046,926 has been paid to the National Debt Sinking Fund, including £3,147,337 for 1950–51.

At 30th June, 1951 the total amount of insurances in force, including cover notes, amounted to £81,876,706. The premium income for period 1st May, 1951 to 31st October, 1952 amounted to £87,601, and expenditure from the War Service Homes Insurance Trust Account to £33,849.

At 30th June, 1951, arrears of instalments outstanding amounted to £232,724 or 0.53 per cent. of the total instalments due.

§ 19. New Building.

1. **General.**—The statistics in this section relate to the operations of private contractors, Government authorities and owner-builders, with the exception of those relating to employment, which exclude the numbers of persons working on owner-built houses. In general, they relate to *new* building only, and data on alterations, additions, renovations and repairs to buildings are excluded, because of the difficulty in obtaining complete lists of persons who engage in these operations. Figures for houses exclude converted military huts, flats and shop dwellings. Some houses built on farms are excluded but these do not affect the figures materially.

These statistics are available for the quarter ended 30th September, 1945 and onward.

The following definitions of terms used in this section are necessary to understand the data presented :—

Owner-Builder. A person who is actually building his own house or is having his house built under his own direction without the services of a contractor.

Commenced. A building is regarded as having been commenced when work on foundations has begun. Owing to the difficulty of defining the exact point that this represents in building operations, it is probable that interpretations placed upon it by informants are not entirely uniform.

Completed. A building is regarded as having been completed when the builder has fulfilled the terms of the contract. As with commencements, the interpretations placed upon this definition may vary.

Under Construction. A building remaining uncompleted at the end of a period is regarded as being under construction, regardless of whether construction was actively proceeding on that particular date.

Employment. The figures of employment relate to persons actually working on new buildings on a specified day. They include working principals, employees, men working as, or for, sub-contractors and men temporarily laid off on account of weather. In addition, they include some employees engaged on alterations, additions, renovations or repairs to buildings *when these jobs are undertaken by a contractor who builds new buildings.* The figures exclude persons working on owner-built houses.

Values. All values shown exclude the value of land and represent the estimated value of buildings on completion.

2. **Value of New Buildings.**—(i) *Completed,* 1950–51. The following table shows the value of all new buildings completed in each State during 1950–51, according to the kind of building. It should be remembered that all values shown exclude the value of land and represent the estimated value of buildings on completion.

NEW BUILDINGS COMPLETED, 1950–51 : VALUE.

(Including Estimated Value of Owner-built Houses.)

(£'000.)

Kind of Building.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	A.C.T.	Aust.
Houses—								
Brick, Brick Veneer, Concrete and Stone . .	16,316	16,438	2,332	8,142	3,662	2,244	848	49,982
Wood (Weatherboard, etc.)	6,262	24,739	11,311	277	390	4,260	375	47,614
Fibro Cement . .	16,768	2,377	1,325	1,938	3,349	212	120	26,089
Other	48	386	323	61	115	10	. .	943
Total Houses . .	39,394	43,940	15,291	10,418	7,516	6,726	1,343	124,628
Flats	1,745	684	34	. .	303	28	55	2,849
Shops with Dwellings . .	545	689	61	7	8	70	15	1,395
Shops without Dwellings	144	183	109	41	86	74	13	650
Hotels, Guest Houses, Boarding Houses, etc.	173	. .	22	256	5	26	9	491
Factories	2,513	2,577	157	273	205	701	18	6,444
Other new Buildings . .	4,952	3,727	1,612	1,047	825	778	139	13,080
Total Other Buildings . .	10,072	7,860	1,995	1,624	1,432	1,677	249	24,909
Total New Buildings . .	49,466	51,800	17,286	12,042	8,948	8,403	1,592	149,537

(ii) *Commenced, Completed and Under Construction*, 1945–46 *to* 1950–51. The following table summarizes the values of all new buildings commenced, completed and under construction for each State for the years 1945–46 to 1950–51.

NEW BUILDINGS : VALUE.

(Including Estimated Value of Owner-built Houses.)

(£'000.)

Year.	N.S.W.	Vic.	Q'land.	S. Aust.	W.Aust.	Tas.	A.C.T.	Aust.
				COMMENCED.				
1945–46	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)
1946–47	30,458	20,422	9,319	4,848	3,036	2,718	749	71,550
1947–48	36,196	26,841	12,093	5,341	4,420	3,607	2,606	91,104
1948–49	45,154	36,325	13,192	7,599	5,825	5,371	1,722	115,188
1949–50	51,277	46,497	16,994	11,301	8,459	8,379	1,365	144,272
1950–51	79,750	73,312	21,082	17,827	14,186	10,336	2,325	218,818
				COMPLETED.				
1945–46	9,305	5,471	3,320	1,682	974	627	112	21,491
1946–47	17,097	11,067	7,257	2,744	2,117	1,417	310	42,009
1947–48	24,305	17,891	10,390	4,080	3,328	2,279	509	62,782
1948–49	33,737	27,357	12,199	6,483	4,707	3,810	757	89,050
1949–50	40,920	34,673	13,953	9,074	5,352	5,342	1,462	110,776
1950–51	49,466	51,800	17,286	12,042	8,948	8,403	1,592	149,537
				UNDER CONSTRUCTION AT END OF YEAR.				
1945–46	14,614	9,817	3,164	2,387	1,571	1,403	430	33,386
1946–47	30,041	19,333	5,337	4,774	2,872	2,759	884	66,000
1947–48	44,461	29,573	7,232	6,170	4,452	4,146	3,013	99,047
1948–49	59,172	41,007	8,479	7,735	6,416	5,872	3,956	133,237
1949–50	75,006	55,729	11,805	10,519	10,022	8,989	4,269	176,339
1950–51	102,708	83,502	15,653	17,272	15,942	12,178	5,116	252,371

(a) Not available.

3. **Numbers of New Houses.**—(i) *Completed*, 1950–51. The following table shows the numbers of new houses completed in each State during 1950–51, according to the material of their outer walls.

NEW HOUSES COMPLETED, 1950–51 : NUMBER.

(Including Owner-built Houses.)

Material of Outer Walls.	N.S.W.	Vic.	Q'land.	S. Aust.	W.Aust.	Tas.	A.C.T.	Aust.
Brick, Brick Veneer, Concrete and Stone ..	5,789	6,661	1,058	4,703	1,961	959	330	21,461
Wood (Weatherboard, etc.)	3,601	12,567	7,844	177	399	2,741	150	27,479
Fibro Cement	10,354	1,602	1,099	1,797	2,679	208	94	17,833
Other	27	195	274	48	121	6	..	671
Total	19,771	21,025	10,275	6,725	5,160	3,914	574	67,444

(ii) *Commenced, Completed and Under Construction*, 1945–46 *to* 1950–51. The next table provides a summary, by States, of the numbers of new houses commenced, completed and under construction for the years 1945–46 to 1950–51.

NEW HOUSES : NUMBER.

(Including Owner-built Houses.)

Year.	N.S.W.	Vic.	Q'land.	S. Aust.	W.Aust.	Tas.	A.C.T.	Aust.
COMMENCED.								
1945–46	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)
1946–47	17,720	12,981	8,925	3,269	2,405	1,642	323	47,265
1947–48	19,807	14,878	9,528	3,580	3,075	2,062	393	53,323
1948–49	21,291	15,487	9,361	4,561	3,843	2,849	534	57,926
1949–50	22,055	21,035	10,009	6,109	5,031	3,664	389	68,292
1950–51	25,162	26,205	10,698	7,966	6,970	4,122	877	82,000
COMPLETED.								
1945–46	5,596	3,666	3,385	1,332	860	479	58	15,376
1946–47	12,187	7,436	7,746	2,227	1,792	1,070	149	32,607
1947–48	14,858	11,846	9,204	3,009	2,771	1,544	271	43,503
1948–49	17,864	14,278	9,354	3,989	3,244	2,287	323	51,339
1949–50	18,766	15,603	9,447	4,904	3,509	2,852	404	55,485
1950–51	19,771	21,025	10,275	6,725	5,160	3,914	574	67,444
UNDER CONSTRUCTION AT END OF YEAR.								
1945–46	9,200	6,135	2,441	1,559	865	1,013	188	21,401
1946–47	14,737	11,680	3,627	2,654	1,521	1,557	368	36,144
1947–48	19,686	14,712	3,951	3,203	1,841	2,065	491	45,949
1948–49	23,113	15,921	3,958	3,940	2,439	2,575	696	52,642
1949–50	26,402	21,353	4,520	5,241	3,957	3,357	678	65,508
1950–51	31,793	26,533	4,943	6,529	5,764	3,558	981	80,101

(a) Not available.

4. **Numbers of New Flats.**—The figures in the two foregoing tables do not include particulars of new flats. The summary below shows the numbers of new flats commenced, completed and under construction in Australia for the years 1945–46 to 1950–51, together with State details for 1950–51. It should be noted : (i) that the figures are additional to the numbers of houses shown in other tables, (ii) that each flat is counted as a separate unit, and the numbers shown therefore relate to individual flats, and (iii) that new flats only are included, i.e., the conversions of old buildings into flats are omitted.

NEW FLATS: NUMBER.

(Individual Flats.)

State.	Commenced during Period.	Completed during Period.	Under Construction at end of Period.
1950–51—			
New South Wales	1,320	966	2,315
Victoria	509	333	901
Queensland	22	26	18
South Australia	52	..	52
Western Australia	174	305	182
Tasmania	19	18	17
Australian Capital Territory	..	36	136
Total	2,096	1,684	3,621
Total, 1949–50	2,292	1,494	3,210
,, 1948–49	2,021	1,345	2,416
,, 1947–48	1,581	768	1,734
,, 1946–47	1,035	319	923
,, 1945–46	(a)	46	197

(a) Not available.

5. **Persons engaged in New Building.**—The following table shows, by States, the number of persons (including contractors and sub-contractors actually working on jobs) engaged on jobs *carried out by builders of new buildings* at 30th June of the years 1946 to 1951. Particulars for 30th June, 1951 show the numbers of tradesmen, contractors, sub-contractors and wage earners engaged. For an explanation of the field of employment covered *see* par. 1 of this section.

PERSONS ENGAGED IN NEW BUILDING.

(Excluding Persons working on Owner-built Houses.)

Particulars.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	A.C.T.	Aust.
30th June, 1951—								
Carpenters	17,307	15,196	8,090	3,589	3,015	3,120	706	51,023
Bricklayers	4,141	2,521	689	1,448	704	416	174	10,093
Painters	3,637	3,241	1,446	887	590	462	245	10,508
Electricians	2,543	1,350	814	327	259	211	72	5,576
Plumbers	3,694	2,473	1,183	748	511	292	155	9,056
Builders' Labourers	8,681	5,512	2,667	1,818	1,597	1,503	513	22,291
Other	5,467	4,127	1,734	1,351	1,309	696	210	14,894
Contractors (a)	4,628	3,495	2,476	830	548	753	65	12,795
Sub-contractors (a)	5,391	4,394	1,341	1,061	628	560	68	13,443
Wage earners	35,451	26,531	12,806	8,277	6,809	5,387	1,942	97,203
Total	45,470	34,420	16,623	10,168	7,985	6,700	2,075	123,441
Total 30th June, 1950	42,393	31,684	15,643	8,743	6,908	5,700	2,022	113,093
,, ,, ,, 1949	41,982	28,442	14,030	7,727	6,220	4,920	1,389	104,710
,, ,, ,, 1948	41,131	26,728	12,766	7,120	5,591	3,798	918	98,052
,, ,, ,, 1947	34,845	22,111	12,184	6,454	5,242	3,369	702	84,907
,, ,, ,, 1946	26,420	17,429	8,883	5,429	4,175	2,514	410	65,260

(a) Actually working on jobs.

§ 20. Clothing and Food Rationing.

For information on the rationing of clothing and certain foodstuffs which was introduced early in the 1939–45 War and was discontinued, as circumstances permitted, from 1947 to 1950, *see* Official Year Books, No. 36, pp. 1084–1090, No. 37, pp. 1206–8 and No. 38, p. 1240.

§ 21. Consumption of Foodstuffs and Beverages.

1. **Quantities Consumed.**—Previous issues of the Year Book up to No. 36 included a statistical survey of the movement in the consumption in Australia, in total and per head of population, of a selected number of commodities over a period of years up to 1940–41 (*see* Official Year Book No. 36, pp. 1098–1100). In issue No. 37 these long-term comparisons were replaced by more detailed information covering consumption of the principal foodstuffs and beverages in annual periods since 1944 in comparison with average annual consumption during the three years ended 1938–39. In this issue the annual periods extend from 1946–47 to 1950–51.

The estimates of total consumption and consumption per head of population in Australia in the two tables following have been compiled by deducting net exports from production and allowing for recorded movements in stocks of the respective commodities. While the estimates may generally be accepted as reasonably accurate, there are some deficiences to which attention should be directed. These relate chiefly to the quantities of poultry, game and fish (fresh and shell) and the quantities of visible oils and other fats entering consumption. In addition, little information is available on the quantities of vegetables, fruit, eggs, etc., which householders produce for their own requirements and the extent of wastage occurring in the marketing of foodstuffs. In all these cases careful estimates have been compiled from the best available data, and the quantities shown as entering consumption in Australia have been adjusted to allow for these circumstances. Other difficulties occur in the compilation of statistics of consumption for which no allowance has been made. These include (i) the absence of particulars of stock movements in a limited number of cases, (ii) the disposal of surplus Army stores after the close of the war and (iii) the purchase of foodstuffs on the civilian market and the despatch of these quantities overseas as gifts in bulk and by parcel post. These deficiencies, however, do not seriously impair the accuracy of the estimates compiled.

The estimates of consumption per head shown in the second table following have been checked, wherever possible, with data from other sources which confirm the reliability of the methods used. The data were obtained principally from the Food Consumption Survey conducted in 1944 by the Nutrition Committee of the National Health and Medical Research Council.

There has been a general upward movement in the consumption per head of population of most foodstuffs and beverages in Australia from the levels of consumption during the three years immediately preceding the 1939–45 War, but there are some notable exceptions, viz. beef, mutton, pig-meats, shell eggs, butter and cream.

More detailed information on the consumption of foodstuffs and beverages is contained in the publication, *Report on Food Production and the Consumption of Foodstuffs and Nutrients in Australia*, issued by this Bureau.

ESTIMATED QUANTITY OF FOODSTUFFS AND BEVERAGES AVAILABLE FOR CONSUMPTION ANNUALLY : AUSTRALIA.

Commodity.	Unit of Quantity.	Average 1936–37 to 1938–39.	1946–47.	1947–48.	1948–49.	1949–50.	1950–51. (*a*)
Milk and Milk Products—							
Fluid Whole Milk	Mil. gals.	161	222	234	242	241	236
Fresh Cream	'000 tons.	19.7	8.0	3.5	3.5	3.5	8.9
Condensed Milk (Sweetened and Unsweetened) ..	"	9.9	9.8	15.4	15.5	16.9	15.8
Concentrated Whole Milk ..	"	3.4	9.5	13.4	13.2	17.3	18.3
Powdered Milk—							
Full Cream	"	8.1	9.2	10.6	13.2	11.7	9.9
Skim	"		2.3	2.0	1.3	0.9	2.6
Infants' and Invalids' Foods (including Malted Milk) ..	"	3.0	5.0	5.1	2.8	4.0	6.6
Cheese	"	13.4	20.6	18.6	17.7	22.7	24.2
Total (in terms of Milk Solids)	"	120.5	160.4	167.9	173.3	176.0	177.3
Meat—							
Beef (bone-in weight) ..	"	442.0	324.0	371.6	422.4	446.9	488.2
Mutton (bone-in weight) ..	"	183.4	154.7	150.8	156.4	164.2	142.5
Lamb (bone-in weight) ..	"	46.1	72.8	87.4	98.1	98.3	91.2
Pork (bone-in weight) ..	"	31.8	22.9	24.1	25.8	26.0	25.2
Offal	"	25.7	31.3	30.7	29.1	34.4	32.5
Canned Meat (canned weight)	"	(*b*)	8.5	10.0	8.4	12.9	11.8
Bacon and Ham (cured weight)	"	31.4	42.5	41.0	36.1	34.6	30.8
Total (in terms of carcass weight)	"	776.1	677.4	739.4	794.0	836.8	840.8
Poultry, Game and Fish—							
Poultry and Rabbits (carcass weight)	"	29.8	54.2	55.1	52.7	54.4	56.2
Fish—							
Fresh (edible weight) ..	"	19.7	20.0	19.4	18.8	20.2	23.2
Shell (edible weight) ..	"	2.1	1.4	2.2	2.7	3.0	3.1
Canned (edible weight) ..	"	12.4	8.5	12.1	10.8	10.1	12.5
Total (edible weight) ..	"	51.5	61.2	65.7	65.9	64.7	71.2
Eggs and Egg Products—							
Shell Eggs	"	78.7	89.3	85.9	84.6	83.9	84.7
Liquid Whole Egg (*c*) ..	"	2.9	8.6	7.6	9.6	8.9	7.9
Egg Powder (*c*)	"	..	..	0.1	0.1	0.2	0.2
Total (Shell Egg equivalent)	"	81.6	97.9	93.6	94.3	93.0	92.8
	mil. doz.	139.3	167.1	159.7	160.9	158.7	158.4
Fats and Oils—							
Butter	'000 tons.	101.0	84.9	84.7	84.6	90.8	114.6
Margarine—							
Table	"	2.8	2.4	3.3	3.2	2.6	1.7
Other	"	12.2	16.6	18.3	20.6	22.7	22.5
Lard	"	5.2	4.0	4.0	4.4	4.0	3.8
Vegetable Oils and Other Fats	"	14.4	13.6	13.8	14.1	13.8	15.2
Total (Fat Content) ..	"	115.5	103.7	106.1	108.6	114.3	134.1

See next page for notes.

ESTIMATED QUANTITY OF FOODSTUFFS AND BEVERAGES AVAILABLE FOR CONSUMPTION ANNUALLY : AUSTRALIA—*continued.*

Commodity.	Unit of Quantity.	Average 1936–37 to 1938–39.	1946–47.	1947–48.	1948–49.	1949–50.	1950–51. (*a*)
Sugar and Syrups—							
Refined Sugar—							
As Sugar	'000 tons.	216.5	221.0	246.0	236.6	242.3	255.8
In manufactured products ..	„	110.1	168.0	181.8	172.9	167.7	194.1
Honey, Glucose and Syrups ..	„	21.9	24.2	24.7	24.0	24.3	28.6
Total (Sugar Content) ..	„	343.9	408.1	447.2	428.5	429.1	472.6
Potatoes—							
White	„	318.5	446.6	450.3	376.9	391.8	341.7
Sweet	„	7.4	5.6	5.3	5.0	5.0	5.2
Total	„	325.9	452.2	455.6	381.9	396.8	346.9
Pulse and Nuts—							
Dried Pulse	„	4.5	10.0	10.3	9.1	15.9	14.8
Peanuts (weight without shell)	„	2.8	7.9	8.9	9.2	5.5	5.8
Edible Tree Nuts (weight without shell)	„	2.6	3.0	5.1	5.0	6.8	8.6
Cocoa (Raw Beans)	„	6.3	10.9	11.8	12.1	13.6	12.3
Total	„	16.2	31.8	36.1	35.4	41.8	41.5
Tomatoes and Fruit—							
Tomatoes (*d*)	„	(*e*) 48.0	102.8	81.5	74.6	94.4	83.5
Citrus Fruit (*d*)	„	97.8	112.4	132.6	136.7	121.8	138.7
Other Fresh Fruit	„	264.0	285.6	316.5	290.3	279.1	281.9
Jams	„	35.1	40.7	48.5	38.2	42.1	41.7
Dried Fruit	„	24.8	27.0	28.6	35.5	30.3	35.1
Canned Fruit	„	31.9	28.1	37.4	46.5	43.8	43.3
Total (Fresh Fruit Equivalent)	„	556.0	658.4	708.6	713.5	684.5	709.5
Vegetables—							
Leafy, Green and Yellow Vegetables	„	(*f*)	179.2	162.5	175.6	163.6	181.3
Other Fresh Vegetables ..	„	(*f*)	268.5	255.3	277.0	255.7	260.4
Canned Vegetables	„	(*f*)	12.9	8.7	14.1	15.9	16.8
Total	„	(*f*)	460.6	426.5	467.3	435.2	458.5
Grain Products—							
Flour—							
White	„	} 574.0	{ 645.2	647.8	671.0	675.3	694.8
Wheatmeal for baking ..	„		34.6	32.3	38.3	39.5	34.0
Breakfast Foods (*g*) ..	„	27.8	34.2	35.8	31.3	32.7	32.0
Rice (Milled)	„	12.2	3.2	2.8	2.9	3.9	14.7
Tapioca, Sago, etc. ..	„	3.7	1.6	3.5	2.0	2.9	2.9
Pearl Barley	„	3.0	2.5	1.5	1.2	2.6	2.4
Barley Meal and Polished Wheat (Rice substitute) ..	„	..	1.3	1.7	1.7	1.0	1.1
Edible Starch (Cornflour) ..	„	4.3	4.3	5.2	5.2	5.7	5.7
Total	„	625.0	726.9	730.6	753.6	763.6	787.6
Beverages—							
Tea	„	21.1	22.5	21.7	22.1	24.3	27.8
Coffee	„	2.0	3.8	3.3	3.3	3.7	2.7
Beer	mil. gals	77.9	119.5	118.2	139.4	146.7	163.9
Wine	„	4.2	8.2	10.5	10.8	12.1	13.4

(*a*) Subject to revision. (*b*) Included under fresh meat at its carcass weight. (*c*) In terms of weight of shell eggs. (*d*) Includes fresh equivalent of manufactured products. (*e*) Probably understated owing to absence of complete data. (*f*) Not available. (*g*) Excludes breakfast foods from maize and rice.

ESTIMATED QUANTITY OF FOODSTUFFS AND BEVERAGES AVAILABLE FOR CONSUMPTION ANNUALLY PER HEAD OF POPULATION : AUSTRALIA.

Commodity.	Unit of Quantity.	Average 1936–37 to 1938–39.	1946–47.	1947–48.	1948–49.	1949–50.	1950–51. (a)
Milk and Milk Products—							
Fluid Whole Milk	gallon	23.4	29.5	30.6	31.1	29.9	28.4
Fresh Cream	lb.	6.4	2.4	1.0	1.0	1.0	2.4
Condensed Milk (Sweetened and Unsweetened) ..	"	3.2	2.9	4.5	4.4	4.8	4.2
Concentrated Whole Milk ..	"	1.1	2.8	3.9	3.8	4.8	4.9
Powdered Milk—							
Full Cream	"	2.6	2.8	3.1	3.7	3.3	2.7
Skim	"		0.7	0.6	0.4	0.2	0.7
Infants' and Invalids' Foods (including Malted Milk) ..	"	1.0	1.5	1.5	0.8	1.1	1.8
Cheese	"	4.4	6.1	5.5	5.1	6.3	6.5
Total (in terms of Milk Solids)	"	39.3	47.8	49.4	49.8	48.9	47.7
Meat—							
Beef (bone-in weight) ..	"	144.1	96.5	108.9	121.3	124.3	131.6
Mutton (bone-in weight) ..	"	59.8	46.1	44.2	44.9	45.7	38.4
Lamb (bone-in weight) ..	"	15.0	21.7	25.6	28.2	27.4	24.6
Pork (bone-in weight) ..	"	10.4	6.8	7.1	7.4	7.2	6.8
Offal	"	8.4	9.3	9.0	8.4	9.6	8.8
Canned Meat (canned weight)	"	(b)	2.5	2.9	2.4	3.6	3.2
Bacon and Ham (cured weight)	"	10.2	12.7	12.0	10.4	9.6	8.3
Total (in terms of carcass weight)	"	253.0	201.7	216.8	228.1	232.9	226.6
Poultry, Game and Fish—							
Poultry and Rabbits (carcass weight)	"	9.7	16.1	16.1	15.1	15.1	15.1
Fish—							
Fresh (edible weight) ..	"	6.4	6.0	5.7	5.5	5.6	6.3
Shell (edible weight) ..	"	0.7	0.4	0.7	0.8	1.0	0.8
Canned (edible weight) ..	"	4.1	2.5	3.5	3.1	2.8	3.4
Total (edible weight) ..	"	16.8	18.2	19.2	18.1	18.1	19.2
Eggs and Egg Products—							
Shell Eggs	"	25.7	26.6	25.2	24.3	23.3	22.9
Liquid Whole Egg (c) ..	"	0.9	2.6	2.2	2.8	2.5	2.1
Egg Powder (c)	"	..	..	..	..	0.1	0.1
Total (Shell Egg equivalent)	"	26.6	29.2	27.4	27.1	25.9	25.0
	No.	243	267	251	248	236	229
Fats and Oils—							
Butter	lb.	32.9	25.3	24.8	24.3	25.3	30.9
Margarine—							
Table	"	0.9	0.7	1.0	0.9	0.7	0.5
Other	"	4.0	5.0	5.4	5.9	6.3	6.1
Lard	"	1.7	1.2	1.2	1.3	1.2	1.0
Vegetable Oils and other Fats	"	4.7	4.1	4.1	4.1	3.9	4.1
Total (Fat Content) ..	"	37.6	31.0	31.2	31.2	32.0	36.1
Sugar and Syrups—							
Refined Sugar—							
As Sugar	"	70.6	65.9	72.1	68.0	67.4	68.9
In manufactured products..	"	35.9	50.0	53.3	49.7	46.7	52.3
Honey and Glucose Syrups ..	"	7.1	7.2	7.3	6.9	6.8	7.6
Total (Sugar Content) ..	"	112.0	121.6	131.2	123.1	119.5	127.2

See next page for notes.

ESTIMATED QUANTITY OF FOODSTUFFS AND BEVERAGES AVAILABLE FOR CONSUMPTION ANNUALLY PER HEAD OF POPULATION: AUSTRALIA—*continued.*

Commodity.	Unit of Quantity.	Average 1936–37 to 1938–39.	1946–47.	1947–48.	1948–49	1949–50.	1950–51. (*a*)
Potatoes—							
White	lb.	103.8	133.0	132.0	108.3	109.0	92.1
Sweet	"	2.4	1.7	1.5	1.4	1.4	1.4
Total	"	106.2	134.7	133.5	109.7	110.4	93.5
Pulse and Nuts—							
Dried Pulse	"	1.5	3.0	3.0	2.6	4.5	4.0
Peanuts (weight without shell)	"	0.9	2.3	2.6	2.6	1.5	1.6
Edible Tree Nuts (weight without shell)	"	0.8	0.9	1.5	1.4	1.9	2.3
Cocoa (Raw Beans) ..	"	2.1	3.2	3.5	3.5	3.8	3.3
Total	"	5.3	9.4	10.6	10.1	11.7	11.2
Tomatoes and Fruit—							
Tomatoes (*d*)	"	(*e*) 15.7	30.6	23.9	21.4	26.3	22.5
Citrus Fruit (*d*)	"	31.9	33.5	38.9	39.3	33.9	37.4
Other Fresh Fruit	"	86.1	85.1	92.8	83.4	77.7	76.0
Jams	"	11.4	12.1	14.2	11.0	11.7	11.2
Dried Fruit	"	8.1	8.0	8.4	10.2	8.4	9.5
Canned Fruit	"	10.7	8.4	11.0	13.3	12.2	11.7
Total (Fresh Fruit equivalent)	"	181.3	196.1	207.8	204.9	190.5	191.2
Vegetables—							
Leafy, Green and Yellow Vegetables	"	(*f*)	53.4	47.7	50.6	45.5	48.8
Other Fresh Vegetables ..	"	(*f*)	80.1	74.9	79.8	71.2	70.1
Canned Vegetables	"	(*f*)	3.9	2.5	4.0	4.4	4.5
Total	"	(*f*)	137.4	125.1	134.4	121.1	123.4
Grain Products—							
Flour—							
White	"	187.1	192.2	189.9	192.7	187.9	187.3
Wheatmeal for baking ..	"		10.3	9.5	11.0	11.0	9.2
Breakfast Foods (*g*) ..	"	9.0	10.2	10.5	9.0	9.1	8.6
Rice (milled)	"	4.0	1.0	0.8	0.8	1.1	4.0
Tapioca, Sago, etc. ..	"	1.2	0.5	1.0	0.6	0.8	0.8
Pearl Barley	"	1.0	0.7	0.4	0.4	0.7	0.5
Barley Meal and Polished Wheat (Rice substitute) ..	"	..	0.4	0.5	0.5	0.3	0.3
Edible Starch (Cornflour) ..	"	1.4	1.3	1.5	1.5	1.6	1.5
Total	"	203.7	216.6	214.1	216.5	212.5	212.2
Beverages—							
Tea	"	6.9	6.7	6.4	6.3	6.8	7.5
Coffee	"	0.6	1.1	1.0	0.9	1.0	0.7
Beer	gallon	11.3	15.9	15.5	17.9	18.2	19.7
Wine	"	0.6	1.1	1.4	1.4	1.5	1.6

(*a*) Subject to revision. (*b*) Included with fresh meat at its carcass weight. (*c*) In terms of weight of shell eggs. (*d*) Includes fresh equivalent of manufactured products. (*e*) Probably understated owing to lack of complete data. (*f*) Not available. (*g*) Excludes breakfast foods from maize and rice.

2. **Level of Nutrient Intake.**—The table below shows details of the estimated supplies of nutrients available for consumption in Australia during annual periods since 1946–47 in comparison with the annual average for the three years 1936–37 to 1938–39. The table has been compiled by the Nutrition Section of the Commonwealth Department of Health and is based on the estimates of quantity consumption per head of population shown in the preceding table,

ESTIMATED SUPPLIES OF NUTRIENTS AVAILABLE FOR CONSUMPTION : AUSTRALIA.

(Per Head per Day.)

Nutrient.	Unit.	Average 1936–37 to 1938–39.	1946–47.	1947–48.	1948–49.	1949–50.	1950–51. (a)
Calories	No.	3,114	3,204	3,248	3,284	3,213	3,262
Protein—							
Animal ..	gm.	58.7	54.4	58.2	59.6	60.8	60.0
Vegetable ..	”	30.8	34.9	36.3	34.7	33.7	33.7
Total	”	89.5	89.3	94.5	94.3	94.5	93.7
Fat	”	133.5	118.6	121.9	124.5	125.1	129.0
Carbohydrate ..	”	376.8	424.8	425.0	424.6	404.9	408.6
Calcium	mgm.	642	762	811	783	805	788
Iron	”	15.3	14.8	15.1	15.3	15.5	15.8
Vitamin A ..	I.U.	4,949	4,783	4,495	4,579	4,581	4,926
Ascorbic Acid ..	mgm.	85.6	99.5	97.1	90.1	88.1	85.8
Thiamin	”	1.4	1.5	1.5	1.5	1.4	1.4
Riboflavin ..	”	1.7	1.8	1.9	1.9	1.9	1.9
Niacin	”	18.2	16.6	18.3	17.9	18.3	18.2

(a) Subject to revision.

§ 22. Valuation of Australian Production.

1. **General.**—The value of production for Australia is computed in accordance with the decisions reached at the Conferences of Australian Statisticians and principally at the Conference held in 1935. The figures published below have been compiled by the State Statisticians from the best data available, and relate to 1949–50. Comparable details for 1948–49 may be found in *Primary Industries Bulletin* No. 44. The adoption of substantially uniform methods of valuing production and of estimating elements of costs of production and marketing renders the results comparable as between States.

Attention is directed to the fact that the value shown in the table refers only to recorded production and excludes the building and construction industry, those industrial establishments not classified as factories, and agricultural and farmyard produce obtained from areas of less than one acre.

The following is a brief explanation of the terms used in the table :—

(a) " Gross value " is the value placed on recorded production at the wholesale price realized in the principal markets. (In cases where primary products are consumed at the place of production or where they become raw material for a secondary industry, these points of consumption are presumed to be the principal markets.)

(b) " Local value " is the gross production valued at the place of production and is ascertained by deducting marketing costs from the gross value. (Marketing costs include freight, cost of containers, commission and other charges incidental thereto.)

(c) " Net value " represents the net return to the producer after deducting from the gross value costs of marketing and of materials used in the process of production. Materials used in the process of production include seed, power, power kerosene, petrol and other oils, fodder consumed by farm stock, manures, dips, sprays and other costs. No deduction has been made for depreciation and maintenance costs.

It should be noted that costs of maintenance of farm buildings and fences have not been deducted from the value of production of rural industries, as particulars are not available for all States. In addition, there is an overstatement in the net value of production for New South Wales by the inclusion of power costs in rural industries. These costs, which amounted to £1,892,000 in 1940–41, have not been ascertained in later years. The value shown for Mines and Quarries in Tasmania is understated owing to the omission of Quarries. This understatement, however, is more or less offset by the inclusion of production costs in Mining. Production costs are not available for all States in respect of Fisheries, and Local Values have been used for this industry with consequent overstatement.

In the chapter dealing with each industry (except trapping and mines and quarries) tables will be found showing the total and per capita values of production for that industry by States for a series of years ending 1949–50.

On page 976 of this issue is a graph showing the Net Value of Production, Australia for all recorded industries for the years 1928–29 to 1949–50.

2. **Value of Production, Australia, 1949–50.**—The following table shows particulars of the gross, local and net values of production in Australia by industries during the year 1949–50 :—

GROSS, LOCAL AND NET VALUE OF RECORDED PRODUCTION : AUSTRALIA, 1949–50.

(£'000.)

Industry.	Gross Production valued at Principal Markets.	Local Value—Gross Production valued at place of Production.	Net Value of Production (without deduction of depreciation or maintenance).
Agriculture	271,944	242,391	209,611
Pastoral	371,624	348,441	337,023
Dairying	101,111	95,760	81,102
Poultry	33,492	30,731	22,228
Bee-farming	837	743	743
Total, Rural (*a*) ..	779,008	718,066	650,707
Trapping	6,381	5,716	5,716
Forestry	25,333	23,195	23,195
Fisheries	4,916	4,234	(*b*) 4,234
Mines and Quarries ..	65,696	64,804	52,979
Total, Non-rural ..	102,326	97,949	86,124
Total, All Primary ..	881,334	816,015	736,831
Factories	(*c*) 661,488	(*c*) 661,488	661,488
Total, All Industries ..	1,542,822	1,477,503	1,398,319

(*a*) The term " Rural " is used to cover those industries ordinarily considered to be farm industries. (*b*) Local value. Production costs not available for all States. (*c*) Net Value.

3. **Net Value of Production, States, 1949–50.**—The following tables show the total net value of production, and the net value per head, for each industry and State during the year 1949–50.

NET (*a*) VALUE OF RECORDED PRODUCTION, 1949–50.

(£'000.)

Industry.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Agriculture ..	69,078	48,707	29,441	30,448	26,603	5,334	209,611
Pastoral	145,919	75,247	55,298	26,764	26,442	7,353	337,023
Dairying ..	24,477	27,175	18,659	6,819	2,445	1,527	81,102
Poultry	9,186	8,232	843	2,180	841	946	22,228
Bee-farming ..	280	236	35	141	40	11	743
Total, Rural ..	248,940	159,597	104,276	66,352	56,371	15,171	650,707
Trapping.. ..	1,816	3,122	109	320	196	153	5,716
Forestry	7,185	5,570	4,020	2,300	2,021	2,099	23,195
Fisheries (*b*) ..	1,449	615	760	287	697	426	4,234
Mines and Quarries	30,843	2,263	5,606	2,941	6,697	4,629	52,979
Total, Non-rural	41,293	11,570	10,495	5,848	9,611	7,307	86,124
Total, All Primary	290,233	171,167	114,771	72,200	65,982	22,478	736,831
Factories.. ..	283,201	219,244	61,354	52,309	26,044	19,336	661,488
Total, All Industries ..	573,434	390,411	176,125	124,509	92,026	41,814	1,398,319

(*a*) *See* letterpress on page 1300. (*b*) Local value.

NET (*a*) VALUE OF RECORDED PRODUCTION PER HEAD OF POPULATION, 1949–50.

(£ s. d.)

Industry.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
Agriculture ..	21 15 7	22 8 10	25 6 3	44 6 8	48 14 10	19 4 7	26 3 0
Pastoral	46 0 1	34 13 5	47 10 11	38 19 4	48 8 11	26 10 2	42 0 11
Dairying ..	7 14 4	12 10 5	16 0 10	9 18 7	4 9 7	5 10 1	10 2 4
Poultry	2 17 11	3 15 10	0 14 6	3 3 6	1 10 10	3 8 2	2 15 6
Bee-farming ..	0 1 9	0 2 3	0 0 7	0 4 1	0 1 6	0 0 10	0 1 11
Total, Rural ..	78 9 8	73 10 9	89 13 1	96 12 2	103 5 8	54 13 10	81 3 8
Trapping.. ..	0 11 5	1 8 9	0 1 10	0 9 4	0 7 2	0 11 0	0 14 3
Forestry	2 5 4	2 11 4	3 9 2	3 7 0	3 14 1	7 11 4	2 17 11
Fisheries (*b*) ..	0 9 2	0 5 8	0 13 1	0 8 4	1 5 6	1 10 9	0 10 7
Mines and Quarries	9 14 5	1 0 10	4 16 5	4 5 7	12 5 5	16 13 9	6 12 2
Total, Non-rural	13 0 4	5 6 7	9 0 6	8 10 3	17 12 2	26 6 10	10 14 11
Total, All Primary	91 10 0	78 17 4	98 13 7	105 2 5	120 17 10	81 0 8	91 18 7
Factories.. ..	89 5 8	101 0 5	52 15 0	76 3 3	47 14 5	69 14 1	82 10 6
Total, All Industries ..	180 15 8	179 17 9	151 8 7	181 5 8	168 12 3	150 14 9	174 9 1

(*a*) *See* letterpress on page 1300. (*b*) Local value.

§ 23. Indexes of Production.

In the tables below, indexes of price and quantity production are given for the following industrial groups, namely :—Agriculture, Pastoral, Farmyard and Dairying, All Farming combined (including separate indexes for Wool and Products other than Wool), Gold and Other Minerals, and All Mining combined.

1. **Primary Production Price Index-Numbers.**—The Primary Production Price Index-Numbers shown in the following table relate to average " prices " of primary products realized in the principal markets of Australia. The " price " data used are average unit values for the total quantities of the relevant commodities produced or marketed in each year and the index-numbers therefore measure both the effects of changes in prices (as such) and of variations in the quality, type, usage, etc. of products marketed. The index-numbers for any year relate to the average values of primary products produced or marketed in that year, irrespective of the periods in which payment is received by producers.

The indexes have been calculated by the fixed-base weighted aggregative method. " Prices " for each commodity in any year are obtained by dividing gross value of production by the quantity produced in that year. In the original published series of Production Price Index-Numbers the average quantities of the relevant commodities *produced* in the period 1923–24 to 1927–28 were used as fixed weights. This series has been retained for years up to 1935–36, but re-computed to the base, average 1936–37 to 1938–39 = 100. For 1936–37 and later years, the original series was replaced in December, 1952 by a revised series of index-numbers, in which average quantities of each product *marketed* during the period 1946–47 to 1950–51 are used as fixed weights. In the revised series of Farming Price Indexes, the regimen was extended and modified to include farm products (as defined by Australian Statisticians) in all cases. Certain other refinements were also incorporated in the revised indexes, the principal of which was the omission from the weights used for the All Farming Index of quantities of crops marketed for live-stock feeding in Australia.

PRIMARY PRODUCTION : INDEX-NUMBERS OF PRICES AT PRINCIPAL MARKETS, AUSTRALIA.

(REVISED SERIES (1952); *see* REMARKS PRECEDING TABLE.)
(*Base : Average* 1936–37 *to* 1938–39 = 100.)

Year.	Farming.						Mining.(*a*)		
	Agriculture.	Pastoral.	Farm-yard and Dairying.	All Farming.	Wool (Shorn and Dead).	Products other than Wool.	Gold.	Other Minerals.	All Mining.
1911–12 ..	92	66	70	76	..	..	49	64	60
1912–13 ..	86	77	78	81	..	..	49	70	64
1913–14 ..	85	76	74	79	..	..	49	69	64
1914–15 ..	143	85	80	105	..	..	49	68	63
1915–16 ..	100	113	98	106	..	..	49	77	70
1916–17 ..	96	127	103	112	..	..	49	89	79
1917–18 ..	112	139	101	123	..	..	49	112	96
1918–19 ..	133	139	111	132	..	..	49	110	95
1919–20 ..	197	146	134	161	..	..	59	114	100
1920–21 ..	170	137	170	155	..	..	65	122	108
1921–22 ..	130	96	118	112	..	..	61	121	106
1922–23 ..	136	127	125	130	..	..	54	120	103
1923–24 ..	119	161	120	139	..	..	51	123	105
1924–25 ..	139	159	105	142	(*b*) 206	..	53	135	115
1925–26 ..	145	130	120	133	126	..	49	138	116
1926–27 ..	129	125	120	125	129	..	49	138	116
1927–28 ..	129	146	120	136	148	..	49	128	108
1928–29 ..	117	129	122	123	125	..	49	123	105
1929–30 ..	110	104	116	108	78	..	49	119	102
1930–31 ..	76	82	93	82	65	..	49	113	97
1931–32 ..	84	71	83	78	64	..	69	92	86
1932–33 ..	79	69	74	74	66	..	84	85	84
1933–34 ..	79	103	73	89	120	..	89	84	85
1934–35 ..	88	77	79	81	74	..	98	85	88
1935–36(*c*) ..	94	99	87	95	107	..	100	91	93
1936–37 ..	114	115	93	109	126	(*b*) 104	99	98	98
1937–38 ..	98	98	102	99	95	100	100	107	105
1938–39 ..	88	87	105	92	79	96	101	95	97
1939–40 ..	100	105	105	104	102	105	112	99	103
1940–41 ..	106	107	105	107	102	108	122	108	112
1941–42 ..	111	108	107	110	102	112	123	116	118
1942–43 ..	131	123	130	128	118	132	120	123	122
1943–44 ..	151	128	147	140	118	147	120	127	125
1944–45 ..	151	129	152	142	118	150	121	135	131
1945–46 ..	175	133	159	157	118	169	123	145	139
1946–37 ..	194	181	158	186	187	185	124	169	156
1947–48 ..	267	262	183	247	301	230	124	221	194
1948–49 ..	234	312	197	260	366	225	124	275	232
1949–50 ..	274	396	228	316	483	262	139	288	246
1950–51 ..	277	815	258	495	1,099	300	178	335	291
1951–52(*d*) ..	336	501	343	404	552	356	(*e*) 178	475	391

(*a*) Year ended previous December. (*b*) Not available for previous years. (*c*) *See* remarks preceding table. (*d*) Subject to revision. (*e*) Based on the price fixed by the Commonwealth Bank; no allowance has been made for gold sold on oversea premium markets.

2. **Primary Production Quantity Index-Numbers.**—The Primary Production Quantity Index-Numbers shown in the following table relate to gross output of farm products and minerals. They have been calculated by the fixed-base weighted aggregative method, the weights used being weighted average unit values obtained by dividing total gross value by total quantity produced for each commodity for the base period.

In the original published series of Primary Production Quantity Index-Numbers, the period 1923–24 to 1927–28 was adopted as the base for weighting purposes. This series has been retained for years up to 1935–36 in the case of the Farming Quantity

Indexes and for all years for the Mining Quantity Indexes, but for all groups the index-numbers have been recomputed to the base, average 1936–37 to 1938–39 = 100. For 1936–37 and later years, the original series of Farming Quantity Index-Numbers was replaced in December, 1952 with a revised series in which average unit values for the period 1936–37 to 1938–39 are used as fixed weights. The regimen used for the revised series was extended and modified to include farm products (as defined by Australian Statisticians) in all cases. Certain other refinements were incorporated in the revised indexes, the principal of which was the omission, in calculating the All Farming Index, of quantities of crops fed to live-stock in Australia.

PRIMARY PRODUCTION: INDEX-NUMBERS OF QUANTITY PRODUCTION, AUSTRALIA.

(REVISED SERIES (1952); *see* REMARKS PRECEDING TABLE.)

(*Base: Average* 1936–37 *to* 1938–39 = 100.)

Year.	Farming.						Mining.(*a*)		
	Agriculture.	Pastoral.	Farmyard and Dairying.	All Farming.	Wool (Shorn and Dead).	Products other than Wool.	Gold.	Other Minerals.	All Mining.
1911–12 ..	51	76	52	63	71	..	179	105	121
1912–13 ..	64	70	50	64	62	..	168	113	124
1913–14 ..	67	79	52	70	68	..	159	119	127
1914–15 ..	30	77	50	57	62	..	148	105	114
1915–16 ..	99	63	40	71	53	..	141	96	105
1916–17 ..	80	61	49	65	54	..	120	86	93
1917–18 ..	67	61	57	62	58	..	105	84	88
1918–19 ..	53	69	56	61	73	..	92	89	90
1919–20 ..	44	77	52	61	73	..	77	64	67
1920–21 ..	87	62	57	69	62	..	68	70	70
1921–22 ..	78	72	67	73	71	..	55	70	67
1922–23 ..	74	76	61	73	71	..	55	78	73
1923–24 ..	80	68	62	71	67	..	51	87	80
1924–25 ..	95	80	76	84	81	..	49	90	81
1925–26 ..	73	84	71	78	86	..	40	90	80
1926–27 ..	90	89	68	86	95	..	38	89	78
1927–28 ..	75	86	73	80	90	..	37	92	80
1928–29 ..	91	92	75	89	99	..	33	80	71
1929–30 ..	79	87	75	82	95	..	31	76	67
1930–31 ..	111	84	82	93	92	..	34	72	64
1931–32 ..	100	92	89	94	102	..	43	59	56
1932–33 ..	110	99	94	102	106	..	52	69	66
1933–34 ..	102	95	100	98	98	..	60	74	71
1934–35 ..	88	98	104	96	102	..	64	79	76
1935–36(*b*) ..	91	95	99	94	98	..	66	88	83
1936–37 ..	97	101	97	98	103	(*c*) 96	85	94	92
1937–38 ..	107	105	101	105	108	105	100	101	101
1938–39 ..	96	94	102	97	89	99	115	105	107
1939–40 ..	120	110	108	109	120	105	119	115	116
1940–41 ..	74	111	107	98	121	91	119	112	114
1941–42 ..	104	114	104	105	123	99	108	117	115
1942–43 ..	97	116	103	103	120	98	83	115	109
1943–44 ..	86	118	100	101	124	94	54	107	96
1944–45 ..	68	104	99	89	105	84	47	104	92
1945–46 ..	100	89	103	93	96	92	47	93	83
1946–47 ..	84	94	103	92	99	90	60	99	91
1947–48 ..	122	99	107	109	102	111	68	107	99
1948–49 ..	108	106	111	109	109	109	64	108	99
1949–50 ..	117	113	111	116	117	115	64	105	97
1950–51 ..	108	110	107	110	118	107	63	121	109
1951–52(*d*) ..	101	106	98	102	114	99	65	125	113

(*a*) Year ended previous December. (*b*) *See* remarks preceding table. (*c*) Not available for previous years. (*d*) Subject to revision.

§ 24. Retail Trade.

1. **General.**—The statistics in this section relate to the operations of all types of retail establishments throughout the Commonwealth.

Information of this nature was first collected in respect of the year ended 30th June, 1948 by a full Census of all retail establishments. As this was the first Census of its type in Australia its scope and the data sought were the minima consistent with the objective of securing a record of the number of such establishments, their type, their geographical distribution, their aggregate sales of goods and a simple commodity dissection together with a record of the value of certain services provided. This Census was followed by a further Census of all retail establishments trading during the year ended 30th June, 1949. The data sought in each Census were almost identical, but certain minor refinements were made to the second Census in the light of experience gained from the first. A more extensive dissection of retail sales into commodity groups was obtained.

In general terms, the Censuses covered those establishments which normally sell goods at retail in shops, rooms, kiosks, and yards. Certain types of establishments which sell services at retail (including repairs and materials therein) were also included, e.g., boot repairers, hairdressers, motor garages and service stations. The Censuses included the retail sales of those factories or wholesalers who conducted a *regular* retail business, but excluded those who only occasionally sold goods at retail. Both new and second-hand goods were included in sales recorded by relevant retail establishments.

The following lists show how certain types of establishments, dealers, etc., were treated :—

Included—

Hotels, wine saloons, refreshment rooms, milk bars.

Bakers, ice-works, tailors (when selling from shop premises to consumers).

Excluded—

Clubs, guest houses, theatres, picture-shows.

Dry cleaners, laundries.

Agents (except in respect of goods sold from retail shop premises).

Gas and electricity suppliers (except for sales of appliances).

Direct selling (either on site or from delivery vehicles) from market gardens, flower gardens, nurseries, dairies, poultry farms, chick hatcheries, etc. (except where a shop or road-side stall is conducted).

Hawkers, street barrows, casual stalls, street sellers.

Timber yards, trade services such as monumental masonry, electrical contracting, plumbing, upholstery, etc.

Real estate agents, stock and station agents, pastoral supply companies.

Newspaper publishers and printers (except in respect of goods sold in a retail shop).

Retail establishments (excluding restaurants, hairdressers, boot repairers, garages and libraries in which the retail sales of goods were less than £50) numbered 101,426 in 1947–48 and 105,614 in 1948–49.

In order to maintain up to date records of retail trade conducted in Australia, it is proposed to take Censuses of retail establishments periodically. During the periods intervening between Censuses, the nature, extent and periodic variations in retail trade are being measured by means of sample surveys. Consequently, for the year ended 30th June, 1950 and subsequent quarterly periods, collections have been made on a sample basis whereby approximately 6,500 establishments have been chosen from the total of over 100,000 retail businesses. By the use of sampling techniques, including the scientific selection of these 6,500 establishments of representative size and type, estimated figures of the total sales of all retail businesses have been calculated for each period. The sales of businesses from which these totals have been calculated represent approximately 40 per cent. of all retail sales in Australia.

2. **Value of Retail Sales, 1947–48 to 1950–51 and quarters ended 30th September, 1950 to 31st December, 1951.**—(i) *States.* The following table shows the total value of goods sold by retail establishments in each State during the years 1947–48 to 1950–51 and the quarters ended 30th September, 1950 to 31st December, 1951.

TOTAL VALUE OF RETAIL SALES : STATES.

(£ million.)

Period.	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	Total. (a)
1947–48	385.5	270.3	130.5	80.4	65.1	29.8	961.6
1948–49	458.2	320.1	154.2	97.9	79.3	35.4	1,145.1
1949–50	533.4	387.5	183.1	121.2	96.7	41.2	1,363.1
1950–51	668.9	475.4	226.1	148.6	118.6	51.7	1,689.3
Quarter ended—							
30th September, 1950	152.3	108.1	51.8	33.1	26.3	11.6	383.2
31st December, 1950	171.3	122.6	58.3	37.6	30.5	13.3	433.6
31st March, 1951	164.1	117.1	55.8	36.9	29.9	12.7	416.5
30th June, 1951	181.2	127.6	60.2	41.0	31.9	14.1	456.0
30th September, 1951	182.3	126.8	62.7	41.0	32.3	14.4	459.5
31st December, 1951	206.4	147.2	69.2	46.0	37.2	16.5	522.5

(a) Excludes Australian Capital Territory and Northern Territory for which the latest available information is in respect of the year ended 30th June, 1949. In that year retail sales in the Australian Capital Territory were £2.4 million and in the Northern Territory £2.0 million.

(ii) *Commodity Groups.* In the following table the total value of retail sales for the years 1948–49 to 1950–51 and the quarters ended 30th September, 1950 to 31st December, 1951 are classified according to commodity groups. Completely comparable figures are not available for the year 1947–48, which has therefore been omitted from the table.

VALUE OF RETAIL SALES BY COMMODITY GROUPS : AUSTRALIA. (a)

(£ million.)

Commodity Group.	Year ended 30th June—			Quarter ended—					
	1949.	1950.	1951.	30th Sept., 1950.	31st Dec., 1950.	31st Mar., 1951.	30th June, 1951.	30th Sept., 1951.	31st Dec., 1951.
Groceries	143.4	160.3	184.7	42.6	46.8	45.9	49.4	52.5	59.1
Butcher's Meat	65.3	74.4	89.1	20.2	21.2	22.4	25.3	26.7	28.2
Other Food	116.6	131.7	155.8	35.9	39.0	40.6	40.3	43.3	49.0
Total Foodstuffs	325.3	366.4	429.6	98.7	107.0	108.9	115.0	122.5	136.3
Beer, Wine and Spirits	95.3	104.4	121.8	26.7	32.0	32.1	31.0	31.6	41.1
Clothing, Drapery, Piecegoods and Footwear	237.8	261.4	322.8	71.5	83.9	76.6	90.8	81.7	95.4
Hardware	72.5	83.1	110.2	24.4	27.9	26.6	31.3	31.1	34.0
Electrical Goods	33.8	41.0	58.2	12.0	16.0	14.8	15.4	17.8	19.1
Furniture	46.4	53.5	74.4	16.5	18.6	18.7	20.6	19.8	19.5
Motor Vehicles, Parts, Petrol, etc.	166.1	255.2	334.7	80.4	83.8	81.1	89.4	89.2	96.0
Other Goods (b)	167.9	198.1	237.6	53.0	64.4	57.7	62.5	65.8	80.2
Total (a)	1,145.1	1,363.1	1,689.3	383.2	433.6	416.5	456.0	459.5	522.5

(a) Excludes Australian Capital Territory and Northern Territory. (b) Includes tobacco, cigarettes, etc., newspapers, books and stationery, chemist's goods, etc.

3. **Commodity Groups, Census of Retail Establishments, 1948–49.**—The number of retail establishments and the total value of retail sales for the year 1948–49 are classified in the following table according to the seventeen broad groups into which retailers were asked to dissect their retail sales. As it was impossible to define or list in detail the types of goods to be included under each commodity group, retailers were asked to show figures for each group in accordance with ordinary trade groupings as understood by them. The commodity group totals are therefore subject to this qualification.

The first part of the table shows the number of retail establishments which recorded retail sales in each commodity group. Many establishments showed sales in more than one group, so that the aggregate of the total number of establishments in all commodity groups is greater than the total number of individual establishments and has little significance. The value of retail sales is classified by commodity groups in the second part of the table.

NUMBER OF RETAIL ESTABLISHMENTS AND VALUE OF RETAIL SALES CLASSIFIED BY COMMODITY GROUPS : STATES, 1948–49.

Commodity Group.	N.S.W.	Vic.	Qld.	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
NUMBER OF ESTABLISHMENTS WHICH RECORDED SALES IN EACH COMMODITY GROUP.									
Groceries	10,404	6,394	4,234	2,481	2,116	1,135	43	21	26,828
Butcher's Meat	2,584	2,025	1,052	766	563	259	10	9	7,268
Fruit and Vegetables	5,194	2,804	2,676	1,220	1,385	623	14	13	13,929
Bread, Cakes	6,621	3,657	2,824	1,485	1,183	468	13	12	16,263
Confectionery, Ice Cream, Soft Drinks	9,675	6,669	4,438	2,544	2,293	1,037	43	26	26,725
Other Food	5,024	2,338	1,676	1,066	1,011	187	15	8	11,325
Beer, Wine and Spirits.. ..	2,606	2,047	1,346	668	631	305	29	12	7,644
Tobacco, Cigars, Cigarettes ..	13,214	8,217	5,781	3,013	3,195	1,206	50	38	34,714
Clothing, Drapery, Piecegoods, Manchester, Soft Furnishings, Haberdashery	5,721	4,724	2,022	1,417	1,291	597	44	25	15,841
Footwear	1,677	1,246	779	541	472	268	23	9	5,015
Hardware, China, Glassware ..	3,682	2,700	1,586	1,322	1,198	449	28	11	10,976
Electrical Goods, Radios, Musical Instruments	1,907	1,454	789	541	597	219	19	8	5,534
Furniture, Floor Coverings ..	1,037	968	436	349	314	161	8	6	3,279
Newspapers, Books and Stationery	2,861	2,276	1,596	842	859	364	18	9	8,825
Chemists' Goods	2,870	1,730	1,446	728	991	314	18	12	8,109
Motor Vehicles, Parts, Petrol, etc.	3,554	2,787	1,751	1,197	1,010	401	38	14	10,752
Other Goods	4,224	4,313	1,534	1,338	791	336	17	19	12,572
TOTAL VALUE OF RETAIL SALES (£'000).									
Groceries	56,967	35,148	24,257	11,361	10,818	4,822	376	340	144,089
Butcher's Meat	26,261	18,829	8,617	5,237	4,027	2,320	112	147	65,550
Fruit and Vegetables	12,618	8,863	4,027	2,456	2,329	845	20	105	31,263
Bread, Cakes	13,000	9,338	4,430	2,896	1,699	1,042	28	63	32,496
Confectionery, Ice Cream, Soft Drinks	13,124	11,438	4,271	2,847	1,917	934	56	67	34,654
Other Food	8,073	5,416	2,157	1,358	1,177	304	37	36	18,558
Beer, Wine and Spirits.. ..	39,309	24,195	12,094	8,183	8,450	3,051	433	318	96,033
Tobacco, Cigars, Cigarettes ..	15,701	11,687	4,856	3,121	2,968	1,204	98	83	39,718
Clothing, Drapery, Piecegoods, Manchester, Soft Furnishings, Haberdashery	86,036	60,550	26,465	17,993	12,599	6,665	257	421	210,986
Footwear	11,461	8,017	3,194	2,291	1,663	877	21	56	27,580
Hardware, China, Glassware ..	31,585	18,336	9,672	5,878	4,783	2,251	139	139	72,783
Electrical Goods, Radios, Musical Instruments	13,187	9,248	5,248	2,784	2,359	995	33	48	33,902
Furniture, Floor Coverings ..	18,726	14,307	5,024	4,034	2,970	1,319	15	159	46,554
Newspapers, Books and Stationery	12,490	8,632	3,513	1,545	1,670	798	40	70	28,758
Chemists' Goods	11,565	7,541	3,733	1,940	1,626	730	10	93	27,238
Motor Vehicles, Parts, Petrol, etc.	61,491	45,136	23,419	16,922	13,711	5,440	285	161	166,565
Other Goods	26,571	23,382	9,225	7,078	4,579	1,794	30	86	72,745
Total	458,165	320,063	154,202	97,924	79,345	35,391	1,990	2,392	1,149,472

4. **Types of Business, Census of Retail Establishments, 1948–49.**—The following tables show, for the year 1948–49, the number of retail establishments and the total value of retail sales classified according to the main types of business. This is a classification of each business according to the principal type of goods sold, and is based on the description given by the proprietor or manager concerned. Where the description given embraced two or more classifications (e.g. "grocer and confectioner"), or where the description did not indicate the types of goods sold (in the cases of department stores, variety stores, general stores and mixed businesses), the type of business was determined by the commodity group in which the largest sales were recorded. The first table shows the number of establishments and the total value of retail sales in each State and Territory, while in the second table the details for Australia are further classified according to turnover size. This is a classification of establishments according to the value of retail sale of goods.

NUMBER OF RETAIL ESTABLISHMENTS AND VALUE OF RETAIL SALES CLASSIFIED BY MAIN TYPE OF BUSINESS : STATES, 1948–49.

Main Type of Business.	N.S.W.	Vic.	Qld.	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
NUMBER OF ESTABLISHMENTS.									
Draper, Clothier, etc.	4,275	3,930	1,264	930	743	299	20	19	11,480
Grocer	8,595	4,961	3,568	1,786	1,662	979	29	14	21,594
Motor and Motor Cycle Dealer, Tyre Store, Garage and Service Station	2,786	2,291	1,296	936	672	262	17	11	8,271
Hotel, Wine Saloon, Wine and Spirit Merchant	2,266	1,788	1,285	635	511	300	20	7	6,812
Hardware, Electrical and Radio Store	1,762	1,754	751	540	442	147	14	8	5,418
Butcher	2,391	1,932	976	708	504	214	9	7	6,741
Furniture Store	598	664	231	154	155	70	(a)	(a)	1,880
Confectioner, Milk Bar and Cafe	2,879	3,323	1,038	682	483	206	21	11	8,643
Fruiterer and Greengrocer ..	2,182	1,910	475	610	369	132	(a)	(a)	5,685
Baker and Cake Shop	1,875	1,483	697	414	312	161	4	6	4,952
Newsagent, Stationer and Bookseller	976	874	419	190	254	73	(a)	(a)	2,794
Chemist	1,141	927	369	279	190	79	..	6	2,991
Grain and Produce Merchant ..	342	246	63	94	61	(a)	..	(a)	822
Tobacconist and Hairdresser ..	1,743	1,853	492	485	413	99	4	5	5,094
Footwear Store	627	711	155	193	94	54	(a)	(a)	1,841
Watchmaker and Jeweller ..	541	433	198	132	79	38	(a)	(a)	1,425
Fishmonger and Poulterer ..	502	420	158	85	83	18	(a)	(a)	1,269
Office and Shop Systems and Machines Store	30	38	22	18	10	10	..	..	128
Cycle Store	248	327	121	110	76	(a)	..	(a)	904
Florist and Nurseryman ..	430	459	73	90	74	(a)	..	(a)	1,157
Sports Goods Store	151	109	64	23	11	(a)	..	(a)	364
Other Types of Business ..	1,547	2,338	423	639	282	110	7	3	5,349
Total	37,887	32,771	14,138	9,733	7,480	3,321	153	131	105,614
TOTAL VALUE OF RETAIL SALES (£'000).									
Draper, Clothier, etc.	113,172	75,839	33,068	23,737	16,744	7,281	236	639	270,716
Grocer	74,598	43,170	33,043	14,137	15,824	7,101	625	256	188,754
Motor and Motor Cycle Dealer, Tyre Store, Garage and Service Station	60,100	44,888	23,562	17,019	13,386	5,374	228	158	164,715
Hotel, Wine Saloon, Wine and Spirit Merchant	39,258	22,786	12,459	8,340	8,512	3,189	422	320	95,286
Hardware, Electrical and Radio Store	32,829	19,797	10,527	6,103	4,401	2,546	195	79	76,477
Butcher	26,327	18,857	8,727	5,260	3,967	2,302	114	147	65,701
Furniture Store	14,368	11,991	4,660	2,733	2,086	1,031	(a)	(a)	37,071
Confectioner, Milk Bar and Cafe	11,430	11,833	3,627	2,474	1,192	657	60	68	31,341
Fruiterer and Greengrocer ..	12,009	9,270	2,892	2,637	1,823	722	(a)	(a)	29,470
Baker and Cake Shop	10,804	8,223	3,481	2,570	1,335	912	21	69	27,415
Newsagent, Stationer and Bookseller	11,976	7,397	3,189	1,169	1,555	668	(a)	(a)	26,052
Chemist	9,316	6,143	2,878	1,546	1,193	573	..	82	21,731
Grain and Produce Merchant ..	7,844	6,052	2,310	1,258	1,269	(a)	..	(a)	19,227
Tobacconist and Hairdresser ..	5,854	6,811	1,415	1,904	1,123	379	2	20	17,508
Footwear Store	6,657	5,571	1,573	1,530	1,189	651	(a)	(a)	17,223
Watchmaker and Jeweller ..	5,659	3,058	1,604	902	825	260	(a)	(a)	12,357
Fishmonger and Poulterer ..	1,831	1 460	456	283	370	78	(a)	(a)	4,489
Office and Shop Systems and Machines Store	1,437	1,381	451	386	176	125	..	..	3,956
Cycle Store	1,001	973	633	390	339	(a)	..	(a)	3,428
Florist and Nurseryman ..	1,127	1,254	271	202	189	(a)	..	(a)	3,153
Sports Goods Store	1,306	994	419	143	64	(a)	..	(a)	2,998
Other Types of Business ..	9,262	12,315	2,957	3,201	1,783	812	39	35	30,404
Total	458,165	320,063	154,202	97,924	79,345	35,391	1,990	2,392	1,149,472

(a) Not available for publication.

NUMBER OF RETAIL ESTABLISHMENTS AND VALUE OF RETAIL SALES CLASSIFIED BY MAIN TYPE OF BUSINESS AND BY TURNOVER SIZE: AUSTRALIA, 1948–49.

Main Type of Business.	Turnover Size.							
	Under £5,000.	£5,000 and under £10,000.	£10,000 and under £20,000.	£20,000 and under £50,000.	£50,000 and under £100,000.	£100,000 and under £250,000.	£250,000 and over.	Total.
NUMBER OF ESTABLISHMENTS.								
Draper, Clothier, etc.	6,067	2,180	1,482	1,036	354	230	131	11,480
Grocer	8,598	7,904	3,635	1,184	213	56	4	21,594
Motor and Motor Cycle Dealer, Tyre Store, Garage and Service Station	3,284	1,935	1,542	1,005	298	131	76	8,271
Hotel, Wine Saloon, Wine and Spirit Merchant	1,645	1,921	1,976	1,030	206	(a)	(a)	6,812
Hardware, Electrical and Radio Store	2,867	1,043	718	492	182	92	24	5,418
Butcher	1,669	2,674	1,864	499	31	4	..	6,741
Furniture Store	887	298	284	258	91	49	13	1,880
Confectioner, Milk Bar and Cafe	6,593	1,683	319	44	(a)	(a)	..	8,643
Fruiterer	3,391	1,746	463	82	3	..	..	5,685
Baker and Cake Shop	3,106	1,258	455	115	(a)	(a)	..	4,952
Newsagent, Stationer and Bookseller	1,173	806	614	166	18	14	3	2,794
Chemist	1,000	1,474	451	62	(a)	(a)	..	2,991
Grain and Produce Merchant	185	189	178	168	81	(a)	(a)	822
Tobacconist and Hairdresser	4,175	579	238	89	(a)	(a)	..	5,094
Footwear Store	942	376	306	180	30	7	..	1,841
Watchmaker and Jeweller	884	283	161	64	18	11	4	1,425
Fishmonger and Poulterer	1,072	125	51	(a)	(a)	..	..	1,269
Office and Shop Systems and Machines Store	45	11	23	27	13	(a)	(a)	128
Cycle Store	717	130	34	18	5	..	..	904
Florist and Nurseryman	1,019	86	37	(a)	(a)	..	..	1,157
Other Types of Business	4,137	926	394	173	51	27	5	5,713
Total	53,456	27,627	15,225	6,724	1,632	685	265	105,614
TOTAL VALUE OF RETAIL SALES (£'000).								
Draper, Clothier, etc.	12,362	15,597	20,635	31,546	24,626	35,144	130,806	270,716
Grocer	25,665	55,625	48,730	34,171	14,300	7,787	2,476	188,754
Motor and Motor Cycle Dealer, Tyre Store, Garage and Service Station	6,992	13,998	21,192	30.555	20,625	18,994	52.359	164,715
Hotel, Wine Saloon, Wine and Spirit Merchant	5,030	14,061	27,705	30,543	13,289	(a)	(a)	95,286
Hardware, Electrical and Radio Store	5,814	7,176	9,892	14,888	12,853	13,569	12,285	76,477
Butcher	5.325	19,322	24,854	13,534	1,986	680	..	65,701
Furniture Store	1,734	2,135	4,163	8,078	6,180	7,137	7,644	37,071
Confectioner, Milk Bar and Cafe	14,528	11,285	4,065	1,141	(a)	(a)	..	31,341
Fruiterer	9,442	11,748	5,949	2,155	176	..	..	29,470
Baker and Cake Shop	8,262	8,604	6,089	3,230	(a)	(a)	..	27,415
Newsagent, Stationer and Bookseller	2,822	5,904	8,476	4,569	1,305	1,978	998	26,052
Chemist	3,475	10,348	5,903	1,667	(a)	(a)	..	21,731
Grain and Produce Merchant	452	1,346	2,512	5,398	5,528	(a)	(a)	19,227
Tobacconist and Hairdresser	6,691	3,923	3,251	2,638	(a)	(a)	..	17,508
Footwear Store	1,545	2,741	4,306	5,402	2,066	1,103	..	17,223
Watchmaker and Jeweller	1,657	1,980	2,193	1,757	1,192	1,634	1,944	12,357
Fishmonger and Poulterer	2,298	868	706	(a)	(a)	..	..	4,489
Office and Shop Systems and Machine Store	109	82	314	838	950	(a)	(a)	3,956
Cycle Store	1,252	896	445	502	333	..	..	3,428
Florist and Nurseryman	1,554	581	477	(a)	(a)	..	..	3,153
Other Types of Business	7,255	6,391	5,297	5,281	3,514	3,908	1,756	33,402
Total	124,264	194,611	207,154	198,835	111,445	100,650	212,513	1,149,472

(a) Not available for publication.

§ 25. The United Nations.

1. **General.**—The Moscow Declaration of 1943 concerning a new international organization for the maintenance of international peace and security marked the end of the League of Nations. The dissolution of the League, and the transfer of certain of its functions to the new body, the United Nations, took place over subsequent years. Information concerning the League of Nations was given in issue No. 35 and earlier issues of the Official Year Book.

The Charter of the United Nations was drawn up by the delegates of fifty nations at the United Nations Conference on International Organization at San Francisco from 25th April to 26th June, 1945. Australia's ratification was deposited on 1st November, 1945. There are now* 60 member states: Afghanistan, Argentina, Australia, Belgium, Bolivia, Brazil, Burma, Byelorussia, Canada, Chile, China, Colombia, Costa Rica, Cuba, Czechoslovakia, Denmark, Dominican Republic, Ecuador, Egypt, El Salvador, Ethiopia, France, Greece, Guatemala, Haiti, Honduras, Iceland, India, Indonesia, Iran, Iraq, Israel, Lebanon, Liberia, Luxembourg, Mexico, Netherlands, New Zealand, Nicaragua, Norway, Pakistan, Panama, Paraguay, Peru, Philippine Commonwealth, Poland, Saudi Arabia, Siam, Sweden, Syria, Turkey, Ukraine, Union of South Africa, Union of Soviet Socialist Republics, United Kingdom, United States of America, Uruguay, Venezuela, Yemen, Yugoslavia.

The full record of the Conference is contained in the Report by the Australian Delegates on the United Nations Conference on International Organization held at San Francisco, United States of America, from 25th April to 26th June, 1945.

The Australian delegates to the Conference were the Rt. Hon. F. M. Forde, M.P., and the Rt. Hon. H. V. Evatt, K.C., M.P.

At San Francisco an Executive Committee and a Preparatory Commission were established, and when these bodies had completed their work of preparation for the first meeting of the United Nations, the General Assembly met in London on 10th January, 1946.

The principal organs of the United Nations are the General Assembly, the Security Council, the Economic and Social Council, the Trusteeship Council, the International Court of Justice, and the Secretariat.

2. **General Assembly.**—This is the forum of the United Nations. In it each member state is represented and has one vote. It meets in regular annual sessions and has provision for special sessions. It has power to discuss any matter within the scope of the Charter and to make recommendations upon it; an exception to this is provided by disputes which are before the Security Council. The Assembly elects the non-permanent members of the other major organs and considers annual reports from them. Upon the recommendation of the Security Council, it may expel a member which has persistently violated the principles of the Charter.

3. **The Security Council.**—This has the primary responsibility for the maintenance of international peace and security. It is composed of five permanent members, namely China, France, the United Kingdom, the Union of Soviet Socialist Republics and the United States of America, and six non-permanent members with two-year periods of office, of whom three retire at the end of each year. The following are the non-permanent members of the Security Council at present*: Ecuador, India, Yugoslavia (retiring at the end of 1951), and Brazil, Netherlands and Turkey (retiring at the end of 1952). On procedural matters, decisions are taken by an affirmative vote of any seven members. But on all other matters, decisions can only be made on the affirmative vote of seven members, including the concurring votes of all the permanent members. However, the powers which are parties to a dispute for peaceful settlement do not vote.

At the first election, three non-permanent seats were filled for one year only. Member states elected for this period were Egypt, Mexico and the Netherlands. Australia, Brazil and Poland were elected for two-year periods.

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* November, 1951.

The Security Council is assisted by a Military Staff Committee consisting of the Chiefs of Staff of the permanent members of the Council. In the event of measures other than armed force failing to remove a threat to peace, plans for the application of armed force are made by the Security Council with the assistance of this committee. The forces required are to be drawn from the member states as a result of particular agreements between those states and the Security Council.

4. **The Economic and Social Council.**—This body consists of eighteen members, each elected for a period of three years. Its main functions are to make, or initiate, studies and reports, and to make recommendations to the General Assembly or to members of the United Nations, upon international, economic, social, cultural, educational, health and related matters. It may make recommendations for the purpose of promoting respect for, and observance of, human rights and fundamental freedoms for all.

The present* members of the Economic and Social Council are: Belgium, China, Chile, France, India, Peru (retiring at the end of 1951), Mexico, Iran, United States, Pakistan, Canada, Czechoslovakia (retiring at the end of 1952), United Kingdom, U.S.S.R., Poland, Uruguay, Philippines, Sweden (retiring at the end of 1953).

5. **The Trusteeship Council.**—The Charter declares the political, social, cultural and economic advancement of the non-self-governing territories to be a sacred trust. A Trusteeship Council has been set up composed of those members of the United Nations who are administering trust territories and an equal number of members who are not administering trust territories (including any permanent members of the Security Council who are not administering trust territories). Territories which may be placed under trusteeship in accord with individual trusteeship agreements are those previously held under mandate, those detached from enemy states as a result of the second World War and those dependent territories placed under the system by the states responsible for their administration. Australia is automatically a member of the Trusteeship Council, as an administering Power. The present* members of the Trusteeship Council are: Australia, Belgium, France, New Zealand, United Kingdom and the United States of America (administering States), and China, the Dominican Republic, U.S.S.R., Argentine, Iraq and Thailand (non-administering states). China and the U.S.S.R. are eligible for permanent membership of the Trusteeship Council by virtue of their permanent membership of the Security Council.

The Council has among its duties the consideration of annual reports submitted by the trustee state, the carrying out of periodic inspections by agreement with it, and the formulation of questionnaires on the welfare and advancement of the dependent peoples.

6. **The International Court of Justice.**—This consists of fifteen judges, no two of whom may be nationals of the same state. Its jurisdiction comprises all cases which the parties refer to it, and all matters especially provided for in the Charter or in treaties and conventions in force. Provision exists in the Statute of the Court whereby States parties to the Statute may accept the jurisdiction of the Court as compulsory, either conditionally, or unconditionally in certain international disputes.

The present* members of the Court are: Judges Alfaro (Mexico), G. H. Hackworth (United States of America), H. Klaestad (Norway), S. B. Krylov (Union of Soviet Socialist Republics), C. de Visscher (Belgium)—all retiring in 1951; Judges Alejandro Alvarey (Chile), Jules Basdevant (France), Jose Gustavo Guerrero (El Salvador), Sir Arnold Duncan McNair (United Kingdom)—all retiring in 1955; and Judges Abdel Hamid Badawi Pasha (Egypt), Hsu Mo (China), John E. Read (Canada), Bohdan Winiarksi (Poland) and Rilovan Zoricic (Yugoslavia). Judge J. de Barros e Azevedo (Brazil), who was to have retired in 1955, died on 7th May, 1951, necessitating a special election for the appointment of a successor.

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* November, 1951.

7. **The Secretariat.**—The Secretary-General is the head of the Secretariat of the organization. He is appointed by the General Assembly upon the recommendation of the Security Council, and he appoints his staff in accordance with the rules approved by the General Assembly. M. Trygve Lie (Norway) was appointed first Secretary-General, and at the Sixth Session of the General Assembly in 1950 was re-appointed for three further years as from 1st February, 1951.

8. **Specialized Agencies.**—In addition to these organs of the United Nations there are thirteen specialized agencies which co-operate closely with the United Nations in many fields on economic and social questions.

Those already in operation are: The International Labour Organization; Food and Agricultural Organization; United Nations Educational, Scientific and Cultural Organization; International Civil Aviation Organization; International Bank for Reconstruction and Development; International Monetary Fund; Universal Postal Union; World Health Organization; International Telecommunications Union; International Refugee Organization.

To enable co-ordination of the work of the specialized agencies, arrangements have been made for them to submit reports on their activities and budgets to the United Nations where they are discussed by the Economic and Social Council and the General Assembly.

§ 26. Diplomatic and other Representatives Overseas and in Australia.

1. **General.**—The following statements show particulars of the various diplomatic and other representatives overseas and in Australia in December, 1952. Full details of British and foreign representation in Australia—diplomatic and consular—and of permanent Australian missions overseas may be obtained from publications issued by the Department of External Affairs, Canberra.

2. **Australian Representation Overseas.**—

AUSTRALIAN DIPLOMATIC AND OTHER REPRESENTATIVES OVERSEAS.

Her Majesty's Australian Ambassador Extraordinary and Plenipotentiary to—

France—Sir Keith Officer, O.B.E., M.C.
German Federal Republic—J. D. L. Hood.
Indonesia—(Vacant); Minister, J. Plimsoll (Chargé d'Affaires *ad interim*).
Ireland—W. T. Doig (Chargé d'Affaires *ad interim*).
Japan—Dr. E. R. Walker.
Netherlands—A. T. Stirling, O.B.E.
Union of Soviet Socialist Republics—(Vacant); J. M. McMillan (Chargé d'Affaires *ad interim*).
United States of America—The Hon. Sir Percy Spender, K.B.E., Q.C.

Her Majesty's Australian Envoy Extraordinary and Minister Plenipotentiary to—

Brazil—P. R. Heydon.
Burma—(Vacant); M. R. Booker (Chargé d'Affaires *ad interim*).
Egypt—C. Massey.
Indo-China—J. P. Quinn.
Israel—O. C. W. Fuhrman, O.B.E.
Italy—C. V. Kellway.
Philippines—Rear-Admiral G. D. Moore, C.B.E.
Thailand—B. C. Ballard.

High Commissioners for Australia in—

Canada—The Rt. Hon. F. M. Forde.
Ceylon—A. R. Cutler, V.C.
India—W. R. Crocker.
New Zealand—(Vacant); Official Secretary, Dr. J. S. Cumpston.
Pakistan—L. E. Beavis, C.B., C.B.E., D.S.O.
Union of South Africa—Lieut.-Colonel W. R. Hodgson, C.M.G., O.B.E.
United Kingdom of Great Britain and Northern Ireland—The Hon. Sir Thomas White, K.B.E., D.F.C., V.D.

Australian Mission—

United Nations (New York)—Minister, W. D. Forsyth.
United Nations (Geneva)—Counsellor, P. Shaw.

Australian Commissioner for—

Malaya—L. R. McIntyre.

Consuls-General—

Switzerland—P. Shaw.
United States of America, (New York)—Lieut-General E. K. Smart, D.S.O., M.C.
United States of America (San Francisco)—S. Jamieson.

Consuls—

New Caledonia—H. D. Anderson.

Trade Commissioners for the Commonwealth of Australia—

Canada—C. L. Steele (Ottawa); J. Payne (Vancouver).

Ceylon—K. W. Ward (Acting) (Colombo).

Egypt and Middle East—S. D. Shubart (Cairo).

France—A. N. Wootton, Commercial Secretary (Paris).

Hong Kong—H. C. Menzies (Hong Kong).

India—W. R. Hudspeth (Calcutta); R. J. Dunlop (Bombay).

Indonesia—G. S. Anderson (Djakarta).

Japan—C. J. Carne (Tokyo).

New Zealand—S. F. Lynch (Wellington).

Pakistan—H. W. Goodger (Karachi).

Singapore—A. J. S. Day, Commercial Counsellor and Trade Commissioner (Singapore).

Southern Europe—A. L. Senger, Commercial Counsellor and Trade Commissioner, (Rome).

Union of South Africa—G. R. B. Patterson (Johannesburg).

United Kingdom of Great Britain and Northern Ireland—C. E. Critchley, M.B.E. (London).

United States of America—Trade Commissioners—R. Hazzard (New York); R. B. Hines (Assistant) (San Francisco).
Commercial Counsellor—A. C. B. Maiden (Acting) (Washington, D.C.).

3. **Oversea Representation in Australia.**—Consular representatives are not included in the following statement. Particulars of these are contained in a publication *Consular Representatives and Trade Commissioners in Australia*, issued by the Department of External Affairs, Canberra. There are more than 150 such representatives in Australia, and 39 countries are represented.

DIPLOMATIC REPRESENTATIVES IN AUSTRALIA.

Ambassador Extraordinary and Plenipotentiary of—

China—(Vacant); Dr. Chen Tai-chu (Chargé d'Affaires *ad interim*) (Canberra U 1319).
France—L. Roche (Canberra F 345).
German Federal Republic—Dr. Walther Hess (Sydney FM 1401).
Indonesia—Dr. Oetoyo (Canberra B 199).
Ireland—Dr. the Hon. T. J. Kiernan (Canberra F 275).
Netherlands—E. Teixeira De Mattos (Canberra X 1236).
Union of Soviet Socialist Republics—N. M. Lifanov (Canberra B 803).
United States of America—Pete Jarman (Canberra 655).

Envoy Extraordinary and Minister Plenipotentiary of—

Belgium—F. F. A. Jansen (Sydney BW 6121).
Brazil—J. Cochrane de Alencar, O.B.E. (Canberra F 380).
Denmark—(Vacant); F. H. Hergel (Chargé d'Affaires *ad interim*) (Sydney BW 3547).
Finland—P. I. Simelius (Chargé d'Affaires) (Sydney FM 3116).
Israel—(Vacant); A. Lapid (Chargé d'Affaires *ad interim*) (Sydney BW 2082).
Italy—Silvio Daneo (Sydney FB 3639).
Philippines—Dr. R. Regala (Sydney FA 1938).
Sweden—J. M. Kastengren (Canberra F 306).

High Commissioner for—

Canada—C. Fraser Elliot, C.M.G., Q.C. (Canberra 665).
Ceylon—J. A. Martensz, C.B.E. (Canberra F 623).
India—Maharaj Shri Duleepsinhji (Canberra F 383).
New Zealand—G. E. L. Alderton (Canberra B 953).
Pakistan—Y. A. Haroon (Sydney BL 3395).
Union of South Africa—(Vacant); G. C. Nel (Acting) (Canberra F 927).
United Kingdom of Great Britain and Northern Ireland—Sir Stephen Holmes, K.C.M.G., M.C. (Canberra 523).

Commissioner for—

Malta—Captain G. F. L. Stivala (Melbourne MU 1291).

TRADE COMMISSIONERS OF OVERSEA GOVERNMENTS IN AUSTRALIA.

Canada—Senior Canadian Government Trade Commissioner—C. M. Croft (Sydney BW 9351).
Canadian Government Trade Commissioner—R. W. Blake (Melbourne MU 4716).
Assistant Canadian Government Trade Commissioner—C. M. Forsyth-Smith (Sydney BW 9351).
New Zealand—Senior New Zealand Government Trade Commissioner—J. A. Malcolm (Sydney BL 3941).
New Zealand Government Trade Commissioner—R. Inglis (Melbourne MU 8111).
Assistant New Zealand Government Trade Commissioners—E. J. Sutch (Sydney BL 3941); G. F. Knowles (Melbourne MU 8111).
United Kingdom of Great Britain and Northern Ireland—United Kingdom Senior Trade Commissioner—J. B. Greaves, C.M.G., O.B.E. (Canberra F 188).
United Kingdom Trade Commissioners—G. R. MacDonald (Canberra F 188); J. R. Adams, C.B.E., A. Hartland (Sydney BW 8086); A. W. Burton, M.B.E., J. D. Leithead (Melbourne MU 5556); P. Ingleson, C.M.G., M.B.E., M.C. (Brisbane B 8588).
Assistant United Kingdom Trade Commissioners—G. A. F. Drummond-Hay, W. Johnston (Sydney BW 8086); E. J. E. Newbold (Melbourne MU 5556).

CHAPTER XXX.

STATISTICAL ORGANIZATION AND SOURCES OF INFORMATION.

§ 1. Statistical Organization in Australia.

1. **Development of Australian Statistics.**—(i) *Crown Colony Blue Books.* Statistical organization in Australia was founded in the "Blue Books" which, in the Crown Colony days, were prepared annually for the information of the Colonial Office. Although primarily intended for administrative purposes, these documents have been important sources of statistical data, even though some important matters are not covered, and others only partially so. These Blue Books form the basis from which later statistical publications were developed. This led to an element of uniformity in statistical compilation within the British Empire.

(ii) *Statistical Registers.* Following the advent of Responsible Government which was granted during the period 1851–1890 to all Australian States except Western Australia—and to that State in 1890—the "Blue Book" was succeeded in all Australian States by "Statistical Registers". These were in many respects the old Blue Books in a new form, and were largely confined to summaries of the "by-product" statistics of Government administrative departments.

The first example of extensive Governmental organization for purely statistical purposes was the taking of periodic population censuses, which were initiated in all States under the Crown Colony régime. The growing need for quantitative data concerning the progress of the several young communities of Australia eventually led to the appointment of official Statisticians commissioned to prepare and publish such data.

(iii) *Statistical Conferences.* To enable the interchange of ideas between States, and to obtain uniform State Statistics which could be aggregated to Australian totals, conferences were held in the several States from as early as 1861. Altogether, six conferences were held prior to the formation of the Commonwealth Bureau of Census and Statistics in 1906. These were held in 1861, 1875, 1890, 1900, 1902 and 1903. The holding of these conferences was continued subsequently to the formation of the Commonwealth Bureau, and a representative from New Zealand attended up to 1928. The most recent conference of Australian Statisticians was held in November, 1950.

2. **Commonwealth Bureau of Census and Statistics.**—(i) *Origin and Aims.* Under the provisions of section 51 of the Commonwealth Constitution, power is conferred on the Commonwealth Parliament "to make laws for the peace, order and good government of the Commonwealth with respect to—" (*inter alia*) "(XI.) Census and statistics". In compliance with this provision, the Census and Statistics Act 1905 was passed, and in 1906 the Commonwealth Bureau of Census and Statistics was created. A conference of Statisticians in 1906 defined the relations between the Commonwealth and State Bureaux, and in each case the State Statistician became the representative in his own State of the Commonwealth Statistician for the purpose of administering the Commonwealth Act. In addition, each State has its own "Statistics Act", and although these are not identical in all States, they embody common principles. With the establishment of the Commonwealth Bureau, the movement towards uniformity in information collected and statistical methods employed received a great stimulus. The Commonwealth Bureau did not attempt to duplicate the existing statistical organization, but endeavoured to use the services of the State statistical offices whenever possible, and to undertake the initial collection of statistics only in fields not already occupied by the States, or in which efficiency demanded complete centralization. Frequent statistical conferences (*see* above) have assisted the uniform development of existing statistics, and have facilitated expansion into new fields.

The scope of the Commonwealth Bureau has constantly been widened, more particularly during the 1939–45 War, when the Bureau responded to the urgent demands of administration for immediate and accurate statistical information in various fields. Since the war, requirements in the administrative, industrial, financial and scientific spheres have led to the development of many new statistical collections. All the activities of the Bureau are covered by the Census and Statistics Act, which confers authority to collect information and contains stringent provisions to ensure that the information obtained is treated in strictest secrecy.

(ii) *Organization.* For administrative purposes the Commonwealth Bureau is divided into a number of Divisions. These are:—Census and Mechanical Tabulation, Compiling, Publications, Research and Analysis, and Administrative.

(*a*) *Census and Mechanical Tabulation Division.* This Division of the Bureau is responsible for the taking of Population Censuses, and for all machine tabulation work required by other Divisions of the Bureau.

(*b*) *Compiling Division.* The Compiling Division is responsible for the compilation of all statistics other than those relating to the Census of Population. It is divided into the following Branches which deal with specific fields of statistical activity:—

Trade and Transport Branch—Responsible for the original compilation, tabulation and analysis of statistics relating to imports and exports, and for the compilation of statistics relating to road and rail transport, aviation, shipping, posts and telegraphs, telephones and wireless.

Prices Branch—Deals with the collection of retail and wholesale prices and the compilation of retail and wholesale price index-numbers. A staff of trained field officers is maintained in the several States to facilitate the collection of accurate information.

Employment and Labour Branch—Compiles all employment estimates, wage and labour statistics.

Primary Production Branch—Deals with statistics relating to agricultural and pastoral activities, mining, forestry and fishing. Original data are largely supplied by State Statisticians.

Secondary Production Branch—Compiles all factory statistics, both annual and monthly. Collates on a Commonwealth basis original annual data supplied by State Statisticians.

Finance and Taxation Branch—Compiles statistics of private finance (banking, insurance, exchange rates, etc.), public finance (Commonwealth, State and Local and Semi-Governmental authorities), and statistics relating to all aspects of Commonwealth taxation.

Demography Branch—Concerned with statistics of births, deaths, marriages and migration, and is responsible for periodic estimates of population.

Social Statistics Branch—Compiles all statistics relating to education, unemployment and sickness benefits, public health and welfare, and public justice.

Development Branch—This Branch was created in 1947 in order to develop new statistical collections to meet post-war demands for more adequate and up-to-date statistics, and also to examine current collections in the light of such requirements. To date the activities of the Branch have been concerned with three major projects, quarterly building statistics, retail sales statistics and all new monthly production statistics. In addition, research is undertaken into the applicability of sampling methods to statistical collections.

(c) *Publications Division.* This Division is responsible for the scrutiny, editing and graphical illustration of all Bureau publications, and, in collaboration with other Divisions, for the initiation, development and co-ordination of statistical publications. It also maintains a regular flow of statistical series to certain international organizations, and revises statistical material in certain oversea and local publications.

(d) *Research and Analysis Division.* This Division undertakes research into the theoretical and practical problems of statistical collection and interpretation. With the Development Branch, it is responsible for the development of new statistical series. Statistics on Australia's balance of international payments and estimates of national income and expenditure are two important fields of its work. In this Division is the Bureau's own specialized library of official and unofficial publications on statistics and economics.

(e) *Administrative Division.* The Administrative Division is responsible for all aspects of staff recruitment and direction, supplies, payment of accounts, etc. The Reproduction Section of the Division is equipped with multilith and duplicating machines for processing statistical statements for more immediate requirements. In addition, a special section of this Division is responsible for the examination of statistical methods and systems and the co-ordination of all statistics in Commonwealth Departments (*see* par. 3 below).

3. **Relation of the Bureau to other Commonwealth Departments.** In October, 1950 the Commonwealth Public Service Board issued a circular relative to the compilation of statistics in other Commonwealth Departments, in which it stated that the Commonwealth Statistician should be the co-ordinating authority on all statistics in Commonwealth Departments, and that, as a general principle, where any new statistical field is to be established involving the regular collection of statistics, the Commonwealth Statistician should be consulted to ensure that they are necessary and that they are based on sound statistical methods; furthermore, that the Commonwealth Statistician should make a regular inspection, at least once every twelve months, of all statistical work done by Departments to ensure that their needs are met by the most economical means and without duplication of effort.

This project of co-ordination is being implemented as time and circumstances permit.

§ 2. Statistical Publications of Australia.

1. **General.**—The official statistical publications of Australia may be divided bibliographically into two main divisions, namely:—(1) Commonwealth publications dealing both individually and collectively with the several States of Australia; and (2) State publications dealing with individual States only.

2. **Commonwealth Publications.**—Commonwealth publications may be grouped under two heads, namely:—(i) Publications issued by the Commonwealth Statistician; and (ii) Parliamentary and Departmental Reports and Papers.

(i) *Publications issued by the Commonwealth Statistician.* The following is a list of the principal statistical publications issued from the Commonwealth Bureau of Census and Statistics since its inauguration to January, 1953:—

Australian Balance of Payments.—Statements, Nos. 1 and 2, 1928–29 to 1949–50.
Australian Life Tables, 1901–1910. *Australian Joint Life Tables*, 1901–1910.
Australian Life Tables, 1920–1922.
Australian Life Tables, 1932–1934. *Australian Joint Life Tables*, 1932–1934.
Australian Life Tables, 1946–1948.
Australian Primary Industries.—Report prepared for the Empire Producers Conference, Sydney, March, 1938.
Census (1911) *Results.*—Bulletins. Vols. I. (Statistician's Report), II., and III., with Appendix "Mathematical Theory of Population."
Census (1921) *Results.*—Bulletins, Nos. 1 to 26. Parts I. to XVI., forming Vol. I., and Parts XVII. to XXIX., forming, with the Statistician's Report, Vol. II.
NOTE.—Part XXVII., Life Tables.

Census (1933) *Results.*—Bulletins, Nos. 1 to 25. Parts I. to XIV., forming Vol. I., Parts XV. to XXVIII., forming Vol. II., and Parts XXIX. to XXXVII., forming, with Statistician's Report and Australian Life Tables 1932–1934, Vol. III.

Census (1947) *Results.*—Bulletins, Nos. 1 to 25. Parts I. to XX. Australian Life Tables, 1946–1948. For details regarding Bulletins and Parts *see* back page of this volume.

**Census of Retail Establishments* (1947–48) *Results.*—Bulletins, Nos. 1 to 7.

**Census of Retail Establishments* (1948–49) *Results.*—Bulletins, Nos. 1 to 7.

**Dairying Industry* (formerly Summary of Dairying Industry).—Statistical Bulletin, monthly; first issue, September, 1937.

**Factories, Principal Statistics, Summary.*—Annually, 1948–49 to 1950–51.

Finance.—Bulletins, 1907 to 1916–17 annually; 1917–18 and 1918–19 (one vol.); 1919–20 and 1920–21 (one vol.); 1922–23 to 1950–51 annually.

**Food Production and the Consumption of Foodstuffs and Nutrients in Australia, Report.* Half-yearly, 1946–47 to 1947–48; annually, 1948–49 to 1950–51.

**Fruit Growing Industry Summary.*—Annually, 1944–45 to 1950–51.

Labour and Industrial Statistics.—Memoranda and Reports, various, to 1913.

Labour Report.—Annually, 1913 to 1950.

**Live-stock Numbers* (formerly Summary of Live-stock Statistics).—Statistical Bulletin, annually, 1943 to 1952.

Local Government in Australia.—July, 1919.

**Manufacturing Industries.*—Bulletins on Individual Industries, annually, 1936–37 to 1939–40, 1940–41 (issue incomplete), and 1944–45 to 1950–51.

**Monthly Review of Business Statistics.*—First issue, October, 1937.

**Occupation Survey* (1945) *Results.*—Detailed tables.

Official Year Book of the Commonwealth of Australia.—Annually, 1907 to present issue (No. 39).

Oversea Trade.—Bulletins, annually, 1906 to 1950–51.

**Oversea Trade.*—Preliminary Bulletin, 1951–52.

**Oversea Trade Statistics: Imports Cleared for Home Consumption classified according to Individual Items of the Customs Tariff,* 1950–51 *to* 1951–52.

Pocket Compendium of Australian Statistics (formerly Statistical Digest).—1913, 1914, 1916, and 1918 to 1952 annually.

Population and Vital Statistics.—Bulletins and Reports, various, 1906–1910. *Demography,* 1911 to 1949 annually.

Primary Industries.—Bulletin, 1950–51 first issue in two parts: Part I. Rural Industries; Part II. Non-Rural Industries and Value of Production (not yet published).

Production.—Bulletin, annually, 1906 to 1947–48. From 1936–37 to 1949–50 issued in two parts: Part I. Secondary Industries; Part II. Primary Industries (including Total Recorded Production).

Professional Papers.—Various. A full list appears in Official Year Book No. 13, p. 3.

Quarterly Summary of Australian Statistics.—First issue, No. 70, December, 1917, replacing *Monthly Summary of Australian Statistics* (Bulletins Nos. 1 to 69).

**Report of Proceedings of the Conference of British Commonwealth Statisticians*, 1951.

**Rural Land Use and Crop Statistics Summary* (formerly Summary of Crop Statistics).—Annually, 1943–44 to 1950–51.

Social Insurance.—Report to the Hon. the Minister of Trade and Customs, 1910.

Social Statistics.—Bulletins, 1907 to 1915 annually, and 1918.

Superannuation for the Commonwealth Public Service.—Report to the Hon. the Minister for Home Affairs, 1910.

**Survey of Motor Vehicles* (1947–48) *Results.*—Bulletins Nos. 1 to 7.

Transport and Communication.—Bulletins, 1906, 1908 to 1916 annually, 1919 to 1930 annually, and 1932 to 1949–50 annually.

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* Obtainable from Commonwealth Statistician—for methods of obtaining other publications still in print *see* back page of this volume.

**Vegetables Grown on Farms for Human Consumption, Summary.*—Annually, 1942–43 to 1950–51.

Wages and Prices.—January, 1932.

Wealth.—The Private Wealth of Australia and its Growth as ascertained by various methods, together with a Report on the War Census in 1915.

**Wheat Industry* (formerly Summary of the Wheat Situation).—Statistical Bulletin, periodically; first issue, July, 1936.

The foregoing list includes all the printed publications issued from the Bureau, and certain more important mimeographed publications issued for the most part annually. Other mimeographed statements, obtainable on application to the Commonwealth Statistician and dealing with a wide variety of subjects, are issued as follows :—

Annually—Bee Farming; Commonwealth and State Taxation Collections; Companies with Oversea Affiliations; Factory Statistics (Preliminary); Meat Production and Utilization; Milking Machines on Rural Holdings; Oversea Trade between Australia and Eastern Countries; Social Services, Expenditure by States; Tractors on Rural Holdings; University Statistics; Value of Production; Wheat Forecast and Estimate.

Half-yearly—Australian Balance of Payments; Trade of Australia with United Kingdom.

Quarterly—Building; Minerals and Metals; Quarterly Business Survey; Retail Sales of Goods; Retail Price Variations—All Items (" C " Series) Index.

Monthly—Banking; Demographic Review; Employment; Exports of Wool from Australia; Export Prices Index; Gold Mining Industry; Life Assurance; Oversea Trade; Production Statistics; Registrations of New Motor Vehicles; Savings Bank Deposits and Savings Certificates.

(ii) *Commonwealth Parliamentary and Departmental Reports and Papers.* Lists of the principal official reports and other documents containing statistical information issued from the inauguration of the Commonwealth appear in the Official Year Books up to No. 13, but it is not now practicable to undertake the preparation of such lists.

3. **State Publications.**—The chief statistical publications of each State are set out hereunder. As with the Commonwealth Parliamentary and Departmental Reports and Papers, it is not practicable to enumerate the various Departmental Reports, statements of accounts, etc., issued by officials, boards, local and semi-governmental authorities, etc., in each State.

(*a*) New South Wales—Statistical Register (annual); Official Year Book of New South Wales (annual); Pocket Year Book (annual); Statistical Bulletin (monthly to December, 1919, quarterly to June, 1943, then discontinued to September, 1948); Monthly Summary of Business Statistics.

(*b*) Victoria—Statistical Register (annual to 1916, then discontinued); Victorian Year-book (annual); Statistical Abstracts (quarterly to 1917, then discontinued to December, 1946).

(*c*) Queensland—Statistical Register (annual); Official Year Book, 1901; A.B.C. of Queensland Statistics (annual to 1936, then discontinued); the Queensland Year Book (annual 1937 to 1941, then discontinued to 1945); Queensland Pocket Year Book (annual).

(*d*) South Australia—Statistical Register (annual); Official Year Book, 1912 and 1913; Statesman's Pocket Year Book of South Australia (annual); Quarterly Summary of Statistics.

(*e*) Western Australia—Statistical Register (annual); Statistical Abstracts (quarterly, previously issued monthly to July, 1917); Pocket Year Book of Western Australia (annual).

(*f*) Tasmania—Statistical Register (annual); Pocket Year Book of Tasmania (annual); Monthly Review of Business Statistics.

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* Obtainable from Commonwealth Statistician—for methods of obtaining other publications still in print *see* back page of this volume.

§ 3. The Third Conference of British Commonwealth Statisticians, Canberra, 1951.

Conferences of the Government Statisticians of the British Commonwealth were held first in London in 1920 and then in Ottawa in 1935. The Third Conference was held in Canberra from 12th to 23rd November, 1951. Delegates were present from Australia, Canada, Ceylon, India, New Zealand and the United Kingdom (including a representative of the Colonial Office). Ireland, the Commonwealth Economic Committee and the United Nations were represented by observers, and the Australian State Government Statisticians were also present. Unfortunately, urgent internal statistical problems prevented the Governments of Pakistan, South Africa and Southern Rhodesia from being represented.

Matters for discussion were decided in advance by the participating countries, which were also invited to prepare and circulate papers on agenda items before delegates left for Australia. When the Conference opened, extensive documentation was available on many items for discussion, including an historical summary of relevant recommendations by previous Commonwealth and recent International conferences.

The Conference reviewed statistical requirements and modern practice on many aspects of the following matters :—

Labour Statistics
Production Statistics
Agricultural Statistics
External Trade Statistics
Retail Trade and Census of Distribution
Application of Sampling Methods
Statistical Co-ordination
National Income
Indexes of Prices
Family Budget Inquiries
Road Transport Statistics
Recent Developments in Census Taking
Mineral Statistics.

Whereas the earlier conferences prepared reports and passed series of resolutions aiming at improving and co-ordinating statistics throughout the Commonwealth, the report prepared by the Third Conference aimed at reaching as firm an expression of views as was consistent with unanimity, whilst at the same time mentioning different views which were expressed if unanimous conclusions were not possible.

The Report concludes with a General Review in which is expressed the realization by the Conference that complete uniformity in statistical practice could not be expected in a Commonwealth which included countries and territories in all parts of the world, and in which there was a great variety of geographical conditions and differing forms of economic and social organization. While aiming at general agreement on the best methods of achieving particular results, the Conference recognized that on many subjects different practices must perforce be followed in the different countries to meet their special needs. In Government affairs, in business and in all discussions of public policy the use of statistics was much more extensive now than at the time of the Second Conference, and during the intervening period important developments had occurred in the theory and application of statistical methods. Greater need existed for an exchange of views on technical matters between the Statisticians of the Commonwealth countries. In view of the advantages to be gained from meetings of these Statisticians, Conference decided that Commonwealth conferences should be held every five years and a co-ordinating committee was appointed to make plans for the Fourth Conference.

The Conference provided an opportunity for an exchange of views which should lead to statistical improvements in all countries represented, and its report should be of assistance to the Statistical Office of the United Nations and other organizations in their work of improving statistics on an international scale. While the tangible results of the Conference would be evident from the Report, the Statisticians felt that the intangible results of personal contact and discussion outside the sessions would be of inestimable value.

§ 4. Select List of Works about, or published in, Australia.

(Compiled by the Librarian of the Commonwealth National Library.)

Under most headings a list is first given of the principal standard books which are still in print. This is followed by lists of selected books published during the current period and of official publications, excluding annual reports, of the same period. In the present list the period covered is 1st January, 1950 to 31st December, 1951. A few books which, though published earlier, were received after the compilation of the last ssue are also included.

Where known, the retail price in the country of publication is given, but this is subject to fluctuation.

A copy of each of the works mentioned is available in the Library.

The Library also publishes the Annual Catalogue of Australian Publications, official papers and books on Australia published overseas, obtainable from the Government Printer at a price of 2s.; Australian Public Affairs Information Service, a monthly subject index to current literature, available gratis from the library; Books Published in Australia, a monthly list of books supplied under copyright, also available gratis from the Library; Monthly list of Australian Government publications.

General and Descriptive.

Australia. The *Herald* Year Book: a reference work of world-wide range, No. 1 to date. Melb., Herald and Weekly Times, 1949 to date. 21s.

Australian Encyclopaedia, The: *editors*, A. W. Jose, H. J. Carter and T. G. Tucker: 3rd ed. 2 v. Syd., Angus & Robertson, 1926–27. 55s. (o.p., but new ed. in preparation).

Grattan, C. H. Introducing Australia: 2nd Aust. ed. Syd., Angus & Robertson, 1949. 7s. 6d.

Madigan, C. T. Central Australia: 2nd ed. Melb., Oxford University Press, 1944. 15s.

Noble, N. S., *ed.* The Australian environment: 2nd ed. Melb., C.S.I.R.O., 1950.

Official Year Book of the Commonwealth of Australia: No. 1 to date. Canberra, Government Printer, 1908 to date. 5s. *per issue.* No. 38 to date, 10s.

Ratcliffe, F. N. Flying fox and drifting sand: the adventures of a biologist in Australia: introd. by Julian Huxley. Syd., Angus & Robertson, 1951. 21s. First published in Great Britain and U.S.A. in 1938.

Taylor, T. G. Australia: a study of warm environments and their effect on British settlement. 6th ed. Lond., Methuen, 1951. 21s.

Walkabout: Australian geographical magazine. Melb., Australian Geographical Society, 1934, to date. 24s. *per annum.*

RECENT PUBLICATIONS.

Abbott, C. L. A. Australia's frontier province. Syd., Angus & Robertson [1950]. 16s.

Audas, J. W. C. The Australian bushland. Melb., Hamer, 1950. 84s.

Collins, D. Victoria's my home ground. Melb., Cheshire, [1951]. 19s. 6d.

Devanny, J. Travels in North Queensland. Lond., Jarrolds, 1951. 16s.

Farwell, G. M. The outside track. [Melb.] Melbourne University Press [1951]. 12s. 6d.

Groom, A. I saw a strange land. Syd., Angus & Robertson [1950]. 15s.

Hill, E. The Territory. Syd., Angus & Robertson, 1951. 25s.

Hillier, R. Portrait of Melbourne: photographed by Rob Hillier: with a profile in words and description by John Hetherington: [introd. by Sam Ure Smith and Mervyn E. R. Horton] [Syd.] Ure Smith [1951]. 25s.

Hurley, J. F. Queensland: a camera study: by Frank Hurley. Syd., Angus & Robertson [1950]. 35s.

Hurley, P. J. In search of Australia: 3rd ed. Syd., Dymock's, 1949.

Spencer, G. M., *ed.* Portrait of Sydney: a photographic impression with an illuminating article by Kenneth Slessor and Sam Ure Smith. [Syd.]. Ure Smith [1950]. 15s.

Territories Outside Australia.

Australia—*External Affairs, Department of.* Handbook and index to accompany a map of Antarctica produced by the Department of the Interior, 1939 : by E. P. Bayliss and J. S. Cumpston. Canberra, Department of External Affairs, 1940. 2s. 6d.

Mair, L. P. Australia in New Guinea : introd. by Lord Hailey. Lond., Christophers, 1948. 18s.

Mead, M. From the South Seas : studies of adolescence and sex in primitive societies. 3 v. in 1. New York, Morrow, 1939. $4.

Official Handbook of New Guinea. Canberra, Department of External Affairs, 1937. 7s. 6d.

Scholes, A. Fourteen men : story of the Australian Antarctic expedition to Heard Island. Melb., Cheshire, 1949. 15s.

Williams, F. E. Orokaiva magic. Oxford, Oxford University Press, 1928. 12s. 6d.

Orokaiva Society. Oxford, Oxford University Press, 1930. 25s.

Papuans of the Trans-Fly. Oxford, Oxford University Press, 1936. 30s.

See also the annual reports of the Administrators of the various Territories, and reports to the General Assembly of the United Nations on trusteeship territories, the anthropological reports of the Governments of Papua and New Guinea, and material appearing in *Oceania.*

RECENT PUBLICATIONS.

Barrett, C. L. The Pacific : ocean of islands. Melb., Seward [1950]. 105s.

Clune, F. P. Somewhere in New Guinea : a companion to Prowling through Papua. Syd., Angus & Robertson [1951]. 25s.

Gordon, D. C. The Australian frontier in New Guinea 1870–1885. New York, Columbia University Press, 1951. $4.25.

Hogbin, H. I. Transformation scene : the changing culture of a New Guinea village. Lond., Routledge, 1951.

Riesenfeld, A. Megalithic culture of Melanesia. Leiden, Brill, 1950. 35 glds.

History.

Cambridge History of the British Empire, v. 7, pt. 1 : Australia. Cambridge, Cambridge University Press, 1933. 35s.

Clark, C. M. H., *ed.* Select documents in Australian history 1788–1850 : selected and edited by C. M. H. Clark with the assistance of L. S. Pryor. Syd., Angus & Robertson [1950]. 30s.

Fitzpatrick, B. C. British empire in Australia : an economic history 1834–1939 : 2nd ed. Melb., Melbourne University Press, 1949. 17s. 6d.

Historical Records of Australia : *editor*, J. F. Watson. Syd., Commonwealth Parliament Library Committee, 1914 to date. 12s. 6d. *per v.* 34 v. have so far appeared. Publication has been suspended since 1925.

Historical Studies : Australia and New Zealand. Melb., Melbourne University Press, 1940 to date. 16s. *per annum.*

La Nauze, J. A. Political economy in Australia : historical studies. Melb., Melbourne University Press, 1949. 9s. 6d.

O'Brien, E. M. The foundation of Australia (1786–1800) : a study in English criminal practice and penal colonization in the eighteenth century : foreword by John M. Ward : [bibliog.]. Syd., Angus & Robertson, 1950. 25s. First published in Great Britain in 1937.

Shann, E. O. G. An economic history of Australia. Melb., Georgian House, 1948. 18s. First published in Great Britian in 1930.

Shaw, A. G. L. Economic development of Australia : rev. ed. Lond., Longmans, 1946. 7s.

RECENT PUBLICATIONS.

Barrett, C. L. Gold in Australia. Melb., Cassell, 1951. 30s.

Victoria—*Premier's Department.* Golden years : 1851–1951 : ed. by E. A. Doyle. Melb., Premier's Department, 1951. 37s. 6d.

The story of the century : 1851–1951 : ed. by E. A. Doyle. Melb., Premier's Department, 1951. 37s. 6d.

Wild, D. The tale of a city : Geelong 1850–1950. Melb., Cheshire, for Geelong City Council, 1950. 15s.

Military and Naval History.

Australia—*Army—Public relations directorate.* The Australian Army at war : an official record of service in two hemispheres, 1939–1945. Melb., The Directorate, 1947.

Bean, C. E. W. Anzac to Amiens : a shorter history of the Australian fighting services in the first world war. Canberra, Australian War Memorial, 1946. 25s.

Macandie, G. L. The genesis of the Royal Australian Navy : a compilation. Syd., Government Printer, 1949. 25s.

McGuire, F. M. The Royal Australian Navy : its origin, development and organization. Melb., Oxford University Press, 1948. 16s.

Official History of Australia in the War of 1914–1918 : *editor*, C. E. W. Bean. 12v. Canberra, Australian War Memorial, 1921–42. 21s. *per v.* V. 8, 10, 11. 18s.

Official History of the Australian Army Medical Services in the War of 1914–1918 : *editor*, Col. A. G. Butler. 3v. Canberra, Australian War Memorial, 1930–43. 21s. *per v.*

RECENT PUBLICATIONS.

Cooper, H. M. A naval history of South Australia and other historical notes. Adel., 1950. 15s.

Feakes, H. J. White ensign–southern cross : a story of the King's ships of Australia's navy : [foreword by Admiral Lord Mountevans of Chelsea]. Syd., Ure Smith [1951]. 42s.

Henry, R. L. The story of the 2/4th Field Regiment : a history of a Royal Australian Artillery Regiment during the Second World War. Melb., Merion Press, 1951. 22s. 6d.

Jacobs, J. W., and Bridgland, R. J., *eds.* Through : the story of Signals 8 Australian Division and Signals A.I.F., Malaya. Syd., 8 Division Signals Association, 1951. 21s.

Laughlin, A. Boots and all : the inside story of the secret war : [foreword by H. Gordon Bennett]. [Melb.], Colorgravure [1951]. 19s. 6d.

O'Brien, J. W. A. Guns and gunners : the story of the 2/5th Australian Field Regiment in World War II. Syd., Angus & Robertson, 1950. 18s. 6d.

Church History.

RECENT PUBLICATIONS.

MASSEY, J. T. The Y.M.C.A. in Australia : a history. Melb., Cheshire [1950]. 42s.
THORPE, O. First Catholic mission to the Australian aborigines. Syd., Pellegrini [1950]. 25s.
WHITE, C. A. The challenge of the years : a history of the Presbyterian Church of Australia in the State of New South Wales : by Rev. C. A. White under authority of the General Assembly : [foreword by Hector Harrison : introd. by J. A. Ferguson]. Syd., Angus & Robertson [1951]. 25s.

Biography.

BIOGRAPHICAL HANDBOOK AND RECORD OF ELECTIONS FOR THE PARLIAMENT OF THE COMMONWEALTH. Canberra, Commonwealth Parliament Library Committee, 1945. 10s. 6d.
A new issue in preparation.
PALMER, V. National portraits : 2nd ed. Melb., Melbourne University Press, 1948. 12s. 6d.
SERLE, P. Dictionary of Australian biography. 2 v. Syd., Angus & Robertson, 1949. 105s.
WHO'S WHO IN AUSTRALIA : 14th ed. by J. A. Alexander. Melb., Herald Press, 1950. 50s.

RECENT PUBLICATIONS.

BAKER, A. D. The life and times of Sir Richard Dry. Hobart, Oldham, Beddome & Meredith, 1951, 10s. 6d.
CUMPSTON, J. H. L. Charles Sturt : his life and journeys of exploration. Melb., Georgian House [1951]. 21s.
FITZPATRICK, K. E. Sir John Franklin in Tasmania, 1837–1843. Melb., Melbourne University Press, 1949. 25s.
HICKEY, S. Travelled roads : foreword by Brian James. Melb., Cheshire [1951]. 18s. 6d.
HUGHES, M. Kent. A biography of John Singleton. Melb., Oxford University Press, 1950. 10s. 6d.
KIDDLE, M. L. Caroline Chisholm : foreword by Prof. Douglas Copland. Melb., Melbourne University Press [1950]. 21s.
MACKANESS, G. The life of Vice-Admiral William Bligh, R.N., F.R.S. : rev. ed. Syd., Angus & Robertson, 1951. 50s. First published in 1931.
RUSSELL, A. William James Farrer. Melb., Cheshire, 1949. 15s.
WATERS, T. D. Much besides music : memoirs. Melb., Georgian House [1951]. 21s.

Constitution and Administration.

AUSTRALIA—*Laws, Statutes, etc.* The acts of the Parliament of the Commonwealth of Australia passed from 1901 to 1935 and in force on 1st January, 1936 : to which is prefixed the Commonwealth of Australia Constitution act. 4 v. and supplements. Canberra, Government Printer, 1936. £6 6s., supplements 10s. *per annum.*
AUSTRALIA—*Prime Minister's Department.* The federal guide : a handbook of the organization and functions of Commonwealth government departments and special war-time authorities, September, 1951. Canberra, Government Printer, 1951.
AUSTRALIA—*Royal Commission on the Constitution of the Commonwealth.* Report. Canberra, Government Printer, 1929. 10s. 6d.
AUSTRALIAN DIGEST, 1825–1933 : being a digest of the reported decisions of the Australian courts and of Australian appeals to the Privy Council : with table of cases ; *editors*, B. Sugerman and others : supplements, 1934 to date Syd., Law Book Co., 1934 to date. 60s. *per v.*, annual supplements, 28s.
COMMONWEALTH LAW REPORTS. Syd., Law Book Co. 1903 to date. 52s. *per v.*
CRISP, L. F. Parliamentary government of the Commonwealth of Australia. Melb., Longmans, Green, 1949. 21s.
FOENANDER, O. de R. Industrial regulation in Australia : a study of awards, method of remuneration fixation and the status of trade unions under the Australian regulative system. Melb., Melbourne University Press, 1947. 17s. 6d.
KERR, D. The law of the Australian constitution. Syd., Law Book Co., 1925. 40s.
KNOWLES, *Sir* George S. The Commonwealth of Australia Constitution act (as altered to 1st July, 1936), and the acts altering the constitution : with notes, tables, indexes and appendices. Canberra, Government Printer, 1937. 15s.
NICHOLAS, H. S. The Australian constitution . . . an analysis. Syd., Law Book Co., 1948. 50s.
PARKER, R. S. Public Service recruitment in Australia. Melb., Melbourne University Press, 1942. 10s.
SAWER, G. Australian government to-day : 3rd ed. Melb., Melbourne University Press, 1951. 2s. 6d.

RECENT PUBLICATIONS.

ALL-AUSTRALIAN FEDERAL CONVENTION, Sydney, 25th and 26th July, 1949. Changing the constitution : by Sir Robert Garran . . . and others : ed. by F. A. Bland. [Syd.] New South Wales Constitutional League [1950]. 2s. 6d.
DAVIES, A. Local government in Victoria. Melb., Melbourne University Press, 1951. [illegible]8.
FRIEDMANN, W. G. Principles of Australian administrative law. [Melb.] Melbourne University Press [1950]. 12s. 6d.

Political History and International Relations.

Australian Outlook, The (incorporating the Austral-Asiatic bulletin): [quarterly]. Syd., Australian Institute of International Affairs, 1947 to date. 15s. *per issue.*

Australian Quarterly, The: a quarterly review of Australian affairs. Syd., Australian Institute of Political Science, 1929 to date. 4s. *per issue.*

Borrie, W. D. Immigration: Australia's problems and prospects. Syd., Angus & Robertson, 1949. 12s. 6d.

Buesst, T. N. M., *and others.* Security problems in the Pacific regions. Melb., Robertson & Mullens, 1949. 8s. 9d.

Current Notes on International Affairs: [fortnightly]. Canberra, Department of External Affairs, 1936 to date.

Deakin, A. The federal story: the inner history of the federal cause: foreword by the Rt. Hon. W. A. Watt: ed. by Herbert Brookes. Melb., Robertson & Mullens, 1944. 12s. 6d.

Evatt, *Rt. Hon.* H. V. Australia in world affairs. Syd., Angus & Robertson, 1946. 10s. 6d.

Australian labour leader: the story of W. A. Holman and the labour movement: 2nd ed. Syd., Angus & Robertson, 1942. 8s. 6d.

The task of the nations. New York, Duell, 1949. $4.50.

McDonald, A. H., *editor.* Trusteeship in the Pacific. Syd., Angus & Robertson, 1949. 10s. 6d.

RECENT PUBLICATIONS.

Hughes, *Rt. Hon.* W. M. Policies and potentates. Syd., Angus & Robertson [1950]. 7s. 6d.

Pearce, *Rt. Hon. Sir* George F. Carpenter to cabinet. Lond., Hutchinson, 1951. 18s. 9d.

Economic and Social Conditions.

Australia *Census and Statistics, Bureau of.* Monthly review of business statistics: No. 1, Oct., 1937 to date. Canberra, The Bureau, 1937 to date. *gratis.*

National income and expenditure: 1938–39 to 1945–46 to date. Canberra, Government Printer, 1946 to date.

Borrie, W. D. Population trends and policies: a study in Australian and world demography. Syd., Australasian Publishing Co., 1948. 21s.

Commonwealth Bank of Australia. Statistical bulletin: v. 1, No. 1 to date. [Syd.], The Bank, 1937 to date.

Copland *Sir* Douglas B. The Australian economy: simple economic studies: 5th ed. Syd., Angus & Robertson, 1946. 7s. 6d.

Economic Record, The: the journal of the Economic Society of Australia and New Zealand. Melb., Melbourne University Press, 1925 to date. 6s. *per issue.*

Giblin, L. F. The growth of a central bank: the development of the Commonwealth Bank of Australia. 1924–1945. Melb., Melbourne University Press, 1951. 30s.

RECENT PUBLICATIONS.

Brown, A. J. Town and country planning: by A. J. Brown and H. M. Sherrard: [foreword by Sir Patrick Abercrombie]. Melb., Melbourne University Press [1951]. 63s.

Copland, *Sir* Douglas B. Inflation and expansion: essays on the Australian economy. Melb., Cheshire [1951]. 14s. 6d.

Higgins, B. What do economists know? six lectures on economics in the crisis of democracy: [foreword by A. B. Ritchie] [Melb.] Melbourne University Press [1951]. 15s.

Nankervis, F. T. Descriptive economics: the Australian economic structure. Melb., Longmans, Green [1950]. 15s.

Tew, J. H. B. Wealth and income: an analysis of the economic and financial systems of Australia and Great Britain: [bibliog.] [Melb.] Melbourne University Press [1950]. 21s.

Tew, M. Work and welfare in Australia: studies in social economics. Melb., Melbourne University Press, 1951. 9s.

Industries, Resources and Trade.

Austin, H. B. The merino: past present and probable. Syd., Grahame Book Co., 1943. 30s.

Australasian Institute of Mining and Metallurgy. Proceedings: new series: [quarterly] Melb., 1912 to date. 99s. *per annum.*

Australasian Manufacturer Industrial Annual. Syd., Manufacturer Publishing Co., 1931 to date.

Australia *Agricultural Economics, Bureau of.* Bulletins. Canberra. The Bureau, 1946 to date.

Australia - *Commonwealth Forestry and Timber Bureau.* Empire forests and the war: Australia: prepared by the . . . Bureau. Melb., The Bureau. 1946.

Australia *Rural Reconstruction Commission.* First to tenth reports. Canberra, Department of Post-war Reconstruction, 1944–47. *gratis.*

Australia To-day: special number of the Australian traveller. Melb., United Commercial Travellers' Association of Australia, 1905 to date. 2s. *per issue.*

Clapp, *Sir* Harold W. Report to the Minister for Transport on standardization of Australia's railway gauges. Canberra, Government Printer, 1946. 5s.

Elford, H. S. *and* McKeown, M. R. Coal-mining in Australia. Melb., Tait Publishing Co., 1947. 15s.

Holmes, J. McD. Soil erosion in Australia and New Zealand. Syd., Angus & Robertson, 1946. 17s. 6d.

Industries, Resources and Trade—*continued*.

RECENT PUBLICATIONS.

AUSTRALIA—*Commerce and Agriculture, Department of.* Dairy farming in Australia: New South Wales ed. Syd., The Department, 1951. 7s. 6d.

DOWNEY, L. A. Pig-raising in Australia. Syd., Angus & Robertson [1951]. 35s.

HOCKING, D. M. Air transport in Australia: by D. M. Hocking and C. P. Haddon-Cave. Syd., Angus & Robertson [1951]. 25s.

LAFFER, H. E. The wine industry of Australia. Adel., Aust. Wine Board, 1949. 5s.

MACINNES, I. G. *ed.* Australian fisheries: a handbook prepared for the second meeting of the Indo-Pacific Council, Sydney, April, 1950: foreword by the Rt. Hon. R. G. Menzies: [bibliogs.] Syd., Printed by Halstead Press [1950]. *gratis.*

MUNZ, H. The Australian wool industry: [bibliog.] Syd., Angus & Robertson [1950]. 21s.

QUEENSLAND—*Royal Commission on pastoral lands settlement.* Report. Brisb., Government Printer, 1951. 4s. 6d.

ROUGHLEY, T. C. Fish and fisheries of Australia: 2nd ed. Syd., Angus & Robertson, 1951. 50s.

SCOTT, W. Greater production: its problems and possibilities. Syd., Law Book Co., 1950. 70s.

WADHAM, S. M. Land utilization in Australia: by S. M. Wadham and G. L. Wood: [2nd ed., bibliog.] Melb., Melbourne University Press [1950]. 30s.

Science and Technology.

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HAWKER, R. W. Synopsis of endocrinology. Brisb., Brooks, 1950. 25s.

KING, E. S. J. Studies in pathology presented to Peter MacCallum: ed. by E. S. J. King, T. E. Lowe [and] L. B. Cox: [bibliogs.] Melb., Melbourne University Press [1950]. 35s.

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ANDERSON, R. H. Trees of New South Wales. Syd., [N.S.W. Department of Agriculture] 1932.

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Oceania: a journal devoted to the study of the native peoples of Australia, New Guinea and the islands of the Pacific Ocean: [quarterly]. Syd., Australian National Research Council, 1930 to date. 20s. *per annum.*

Price, A. G. White settlers and native peoples: an historical study of racial contacts between English-speaking whites and aboriginal peoples in the United States, Canada, Australia and New Zealand. Melb., Georgian House, 1949. 25s.

Strehlow, T. G. H. Aranda traditions. Melb., Melbourne University Press, 1947. 17s. 6d.

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Marshall, A. People of the dream time: aboriginal legends re-told. Melb., Cheshire, 1951. 12s. 6d.

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BARNETT, P. N. Australian book-plates and book-plates of interest to Australia. Syd., Beacon Press, 1950. 252s.

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**CRITICISM, BIBLIOGRAPHY AND ANTHOLOGIES.*

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AUSTRALIAN POETRY: [annual] Syd., Angus & Robertson, 1941 to date. *Various prices.*

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COWLING, G. H., *comp.* Australian essays: comp. by G. H. Cowling and Furnley Maurice. Melb., Melbourne University Press, 1936. 4s. 6d.

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MILLER, E. M. Australian literature from its beginnings to 1935. Melb., Melbourne University Press, 1940. 42s. (o.p., but new ed. in preparation).

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PALMER, N. Henry Handel Richardson: a study. Syd., Angus & Robertson, 1950. 15s.

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COLLOPY, K. E. The splendid hour. Canberra, Australian War Memorial, 1951. 10s.
DEVANEY, J. Poems. Syd., Angus & Robertson, 1950. 10s. 6d.
INGAMELLS, R. The great south land : an epic poem. Melb., Georgian House, 1951. 42s.
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JAMES, B. The advancement of Spencer Button. Syd., Angus & Robertson, 1951. 1[illegible]s. 6d.
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PRICHARD, K. S. Winged seeds. Syd., Australasian Publishing Co., 1951. 12s. 6d.
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MCKELLAR, J. Digging at roots. Melb., Jindyworobak, 1951. 8s. 6d.
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COLLINS, D. Shipmates down under. New York, Holiday, 1950. $2.25.
GURR, N. S. A dog for Robin. Syd., Australasian Publishing Co., 1950. 4s. 6d.
HATFIELD, W. Wild dog frontier. Melb., Oxford University Press, 1951. 7s. 6d.
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HODGE, H. C. Warrumbungie the wallaby : an Australian animal story for young people. Syd., Angus & Robertson, 1950. 10s. 6d.
KIDDLE, M. West of sunset. Syd., Australasian Publishing Co., 1949. 8s. 6d.
MCNAIR, W. A. Starland of the south. Syd., Angus & Robertson [1950]. 12s. 6d.
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WEATHERLY, M. Australia's child : a story of station life from a child's point of view. Melb., Cheshire, 1951. 5s.
WILLIAMS, R. C. Verity of Sydney Town. Syd., Angus & Robertson, 1950. 10s. 6d.

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D'ALPUGET, L. Let's go sailing. Syd., Ure Smith, 1951. 12s. 6d.
EDWARDS, S. H. Shooting and shooting bushcraft. Syd., Angus & Robertson, 1951. 7s. 6d.
FINGLETON, J. H. Brown and company : the tour in Australia. Lond., Collins, 1951. 12s. 6d.
MCCAUSLAND, M. E. Fly fishing in Australia and New Zealand. Melb., Lothian Pub. Co., 1950. 42s.
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DIARY OF PRINCIPAL ECONOMIC EVENTS, 1948 to 1951.

The principal economic events for the years 1931 to 1938 were shown on pp. 968 to 977 of the Official Year Book No. 33, those for the years 1939 to 1944 on pp. 1129 to 1141 of the Official Year Book No. 36 and those for the years 1945 to 1947 were included in the range of years—1945 to 1949—covered by the two Official Year Books following (Nos. 37 and 38). For reasons of space some of the items originally shown for the years 1948 and 1949 have been omitted from this issue. Previous issues should be consulted for additional information for these years.

1948.

Employment continued to increase during 1948, the total increase (excluding rural and household domestic) being about 88,000 (63,000 males and 25,000 females). The number on unemployment benefit remained negligible during the whole year and labour shortages continued fairly generally. The migration programme was carried on during the year with increasing vigour and permanent arrivals exceeded permanent departures by 48,000.

Although black coal production for the whole of Australia reached 14,800,000 tons, there were at times serious shortages resulting in restrictions in electricity and gas supplies and in transport services. Seasonal conditions continued favourable, the 1948-49 wool clip being slightly larger than in the previous year, and the wheat crop considerably above average although well below the previous year. There were about 48,000 new houses completed during 1948.

Exports rose to more than £500,000,000, an increase of 60 per cent. over 1947, and imports to about £380,000,000, an increase of 40 per cent. over 1947. Export prices increased more than 25 per cent. during the year and import prices by 6 per cent. Retail prices increased about 10 per cent. during the year, wholesale prices about 14 per cent. Average factory earnings in the last quarter were 13 per cent. above the last quarter of 1947.

Partly as a result of increasing prices, national income continued to rise, and gross private investment continued at about 20 per cent. of gross national product.

1st January.—Forty-hour week became effective throughout Australia.

23rd January.—Secretary to the Treasury (Mr. S. G. McFarlane) appointed fourteenth director of the International Monetary Fund and Bank of World Reconstruction and Development. The Commonwealth Statistician (Dr. Roland Wilson) to be alternate director.

2nd February.—Railway dispute on wages awards in Queensland involving about 19,000 railwaymen. (Lasted till 4th April.)

20th February.—Major water conservation works in £25,000,000 plan for "Drought proofing" Victoria, involving, amongst other works, the enlargement of Eildon reservoir, commenced.

20th April.—Minister for Defence announced five-year defence programme of £250,000,000 including £33,500,000 for scientific research.

5th May.—Minister for Housing in New South Wales announced scheme for £8,000,000 housing project to meet industrial expansion, involving 5,000 homes in the Wollongong-Port Kembla district.

29th May.—Constitution Alteration (Rents and Prices) Referendum resulted in majorities in all States against proposal.

3rd June.—Australian Iron and Steel Ltd. plans to spend £20,000,000 in the next ten years on extensions to its Port Kembla works to include a new tinplate mill and blast furnaces on an area of more than two square miles.

22nd June.—Meat and clothes rationing ceased throughout Australia.

3rd July.—Prime Minister left for London to discuss empire trade and other problems.

12th July.—Announcement of modified wheat stabilization plan guaranteeing a price of 6s. 3d. per bushel f.o.r. ports for bulk wheat. (Subsequently adopted by majority of growers in four main wheat producing States and ratified by Commonwealth—Wheat Industry Stabilization Act assented to 25th November—and State Governments, the plan will operate for the five years 1948-49 to 1952-53.)

11th August.—Judgment delivered by Full High Court declaring invalid certain vital sections of Banking Act 1947.

16th August.—Control of rents passed from Commonwealth to States.

19th August.—New Zealand currency restored to parity with sterling.

24th August.—Announcement of increase from £360,000,000 to £569,000,000 in national works programme to cushion a possible depression during the next five years, covering 6,245 works projects throughout Australia.

2nd September.—Minister for Commerce and Agriculture announced that, under terms of a seven-year agreement operating from June, 1948, Australia will ship to United Kingdom the total exportable surplus of butter and cheese, less agreed quantities for other markets.

8th September.—Commonwealth Budget for 1948-49 introduced, providing for expenditure of £511,000,000 and revenue of £493,000,000. Estimated expenditure on Defence and Post-war Charges was £199,000,000 (including £10,000,000 United Kingdom Grant, £38,000,000 for re-establishment and repatriation, and £23,000,000 to be set aside for war gratuities), on social services £88,500,000, and on capital works and services £38,000,000. Reductions in Income Tax, Social Services Contribution, Sales Tax and Excise Duty were expected to reduce the yield from taxation by about £29,000,000 a year.

20th September.—Control of prices taken over by individual States from Commonwealth. Thirty thousand items released from price control, but control continued on essential commodities and services, and house and agricultural land sales (about 20,000 items).

30th September.—Bill introduced into House of Representatives providing for acceptance by Australia of the Havana Charter for an International Trade Organization and a General Agreement on Tariffs and Trade. (Act assented to 17th December. Actual acceptance, however, conditional on that of United Kingdom and United States of America.)

6th October.—Coal miners' dispute in Southern coal-fields, New South Wales (Kemira Tunnel Dispute), resulting in general stoppage of coal production. (Settled 8th November.)

24th October.—Announced that Joint Coal Board would spend £16,000,000 on mechanizing and modernizing Australian coal mines.

12th November.—Announcement of new agreement under which Britain will buy more than half of Australia's dried fruit production for the next five years.

22nd November.—Legislation approved to establish and constitute an Australian Shipping Board to run a Commonwealth line of ships. (Shipping Bill introduced in Senate 9th December; Act assented to 25th March, 1949.)

29th November.—New Australian made car, the "Holden", displayed publicly for first time.

1949.

A general black-coal strike lasting seven weeks in July and August, together with heavy flooding in the northern coal-fields of New South Wales, seriously disrupted productive activity, large coal consumers such as the steel and cement-producing industries being particularly affected. During this period of industrial dislocation the numbers of persons unemployed rose sharply to more than 100,000, but otherwise conditions of labour shortage continued throughout the year. Employment (excluding rural and household domestic) increased by about 80,000 (60,000 males and 20,000 females). Most of this increase was due to immigration, which was about three times as great as in 1948. Permanent arrivals exceeded permanent departures by about 150,000.

Following the black-coal strike, secondary industry revived rapidly, and during the last three or four months of 1949, production of basic essentials such as coal, gas, electricity, iron and steel, and cement was well above the level of the previous year. There were about 53,000 new houses completed during 1949.

For the third year in succession seasonal conditions were exceptionally favorable, although heavy rains and floodings did considerable damage in the northern and eastern areas of Australia. Wool production in 1949–50 was about 10 per cent. higher than in the previous year and wheat production was very close to the all-time record established in 1947–48. With increases in wool prices more than balancing falls in wheat and metal prices, exports continued to rise in value. The value of imports rose even faster, the main increases being in motor vehicles and machinery of all kinds.

Retail and wholesale prices increased by about 10 per cent. during the year.

31st January.—National Savings Campaign launched by the Prime Minister on termination of Savings Certificate Scheme.

8th February.—Sydney storemen and packers decided to refuse to deliver wool, skins, tallow and hides from stores unless claim for 30s. a week increase granted within seven days. (Ban came into force on 16th February. Dispute settled 30th March.)

12th February.—Completion of sowing of 30,500 acres of sorghum on the Peak Downs for the Queensland-British Food Corporation.

13th February.—The Commonwealth to build hostels in Newcastle, Port Kembla, Adelaide and Melbourne to accommodate 100,000 European migrants to arrive in the next 18 months.

16th February.—Decision of Commonwealth to admit women to clerical and professional grades of Commonwealth Public Service.

24th February.—Bills introduced to reduce rates of Income Tax and Social Services Contributions payable by individuals—to take effect from 1st July. (Acts assented to 12th March.)

16th March.—Bill authorizing construction of dams and weirs at Menindee, New South Wales at estimated cost of £2,300,000 introduced in New South Wales Lower House. Storage capacity of project is approximately 2,000,000 acre feet of water. Scheme will supply water to more than 1,000,000 acres of pastures. (Act assented to 18th April, 1949. Works commenced 12th October, 1949.)

21st March.—Agreement of wheat importing nations to purchase 450,000,000 bushels of wheat a year, mainly from United States of America, Australia and Canada—Russia and Argentine not partners to agreement. Australia's share 80,000,000 bushels a year. (Bill to approve acceptance of agreement by Australia introduced 19th May. Act assented to 30th June.)

15th April.—Agreement between Australia and New Zealand to give citizens of each country full Social Service benefits when resident in the other.

28th April.—Australian Prime Minister and British Minister of Food announced agreement to arrangements for increasing meat exports from Australia to United Kingdom. (Bill introduced 18th October for grant of financial assistance to Queensland and Western Australia for development of meat production by improving roads and other facilities for movement of live-stock. Act assented to 28th October.)

11th May.—Representatives of Australia, New Zealand and South Africa met in London to discuss promotion of use of wool in all countries, possible co-operation with South American countries, future development in other regions, and scientific research.

16th May.—New South Wales State Cabinet approved restrictions on use of electricity by industry and commercial and domestic users. Industry in County of Cumberland to reduce consumption of electricity by 30 per cent. as from 1st June.

Victorian State Cabinet ratified Murray River Agreement which, *inter alia*, provides for enlargement of Hume Weir and installation of hydro-electric plant. Agreement already ratified by Governments of Commonwealth, New South Wales and South Australia.

17th May.—Rural Finance Corporation Bill introduced in Victorian Legislative Assembly, providing for an institution to afford additional and more effective credit facilities for primary producers and those conducting or desirous of establishing secondary industries in country districts. (Assented to 8th November.)

Governor of Commonwealth Bank announced current advances policy to be observed by banks, designed to limit excessive demand for goods generally, and for capital goods in particular, in relation to supplies available.

20th May.—Bill introduced, providing for establishment of Australian Whaling Commission to carry on whaling activities in or near Australian waters. (Act assented to 12th July.)

26th May.—Federal Cabinet decided to make joint purchase with New Zealand Government of Christmas Island phosphate deposits. Deposits, estimated at 25 to 30 million tons, will cost £2,750,000. (Christmas Island Agreement Bill introduced 26th October; Act assented to 29th October.)

6th June.—Full High Court unanimously declared invalid National Security (Liquid Fuel) Regulations, thus restoring free retailing of petrol.

10th June.—Announced that Victorian State and Municipal authorities plan to spend £46,000,000 in the next eight years in order to expand electricity generation and make it less dependent on supplies of black coal.

17th June.—Following threat of general coal strike over dispute about claims for 35-hour week, 30s. a week wage increase and long-service leave, the Joint Coal Board announced most drastic coal rationing ever imposed in Australia. Floods on northern New South Wales coal-fields stopped delivery of coal.

22nd June.—Construction work on Dumaresq River marked the beginning of the Border River Scheme, designed to harness the waters of the Barwon, Macintyre and Dumaresq Rivers, separating New South Wales and Queensland.

27th June.—All Australian black coal mines idle (*see* 17th). Transport, power, lighting and gas supplies severely restricted in all States; much unemployment caused, especially in New South Wales. (Work resumed 15th August.)

28th June.—Following abolition of Stevedoring Industry Commission, Stevedoring Industry Bill introduced to establish Australian Stevedoring Industry Board. (Assented to 18th July.)

30th June.—Bill introduced to enable Commonwealth Government to require liquid fuel importers to hold stocks at specified places for defence requirements. (Act assented to 12th July.)

11*th July.*—Air transport agreement between Australia and India signed, to prevent uneconomic competition, for collaboration on fares and freights, and for reciprocal traffic rights.

12*th July.*—Prime Minister stated that Commonwealth Government would increase subsidy paid to certain gold mines. Rate of assistance to be raised from 4 to 6 per cent. of paid-up capital.

19*th July.*—Commonwealth Finance Minister's Conference in London recommended 25 per cent. cut in dollar imports. (Approved 3rd August by Federal Cabinet sub-committee.)

26*th July.*—Privy Council dismissed Commonwealth Government's appeal against High Court's invalidation of Commonwealth's bank nationalization legislation (Banking Act 1947).

15*th August.*—Announced that experiments in air-freighting beef carcasses in north-western Australia had proved successful.

18*th August.*—Federal Government agreed to waive all duties on essential materials which States find necessary to import, mainly building materials, steel products and locomotives, because they are unobtainable in Australia.

Prime Minister stated that he would recommend to Cabinet a special grant of £8,000,000 to State Governments, to relieve losses incurred in coal strike. (Bill introduced 7th September, assented to 27th October.)

Introduction of Land Settlement (Development Leases) Bill to enable South Australian Government to grant development leases to the Australian Mutual Provident Society and other approved persons or associations. (Act assented to 13th October.) The Society plans to transform a large tract of the Ninety Mile Desert, South Australia, into rich agricultural land, by the application of modern scientific methods, for ultimate sub-division for closer settlement.

7*th September.*—Introduction of 1949–50 Commonwealth Budget, providing for expenditure of £541,300,000 and revenue of £532,600,000 on basis of existing legislation and commitments. Estimated expenditure on War and Repatriation (1939–45) Services was £101,000,000 and on Defence Services £64,000,000—less estimated credits of £11,000,000; on statutory payments to National Welfare Fund £121,000,000; and on Capital Works and Services £53,200,000. Proposals for Income Tax extensions of depreciation allowances and of life assurance and superannuation concessional rebates, Sales Tax reductions and exemptions, a reduction in Entertainments Tax, and remissions in Customs, Excise and Primage Duties will reduce revenue by £9,600,000 a year. Expenditure proposals included a further grant of £10,000,000 to the United Kingdom, additional payments of £9,000,000 to the States and a payment of £6,700,000 from Trust Fund balances to the War Gratuity Reserve. Taking these proposals into account, net revenue for 1949–50 was estimated at £532,000,000 and expenditure at £567,000,000, leaving £35,000,000 to be financed from Loan Fund.

Coal Industry Tribunal granted long-service leave to miners throughout Australia. New award provides for thirteen weeks' leave on full pay after a minimum of ten years' service. No miners to commence long-service leave before June, 1954, owing to present manpower shortage in the coal industry. (In October, 1952, the commencement date was advanced to January, 1953.)

19*th September.*—Prime Minister announced devaluation of sterling against American dollar, and commensurate devaluation, as from commencement of business to-day, of Australian pound to 2 dollars 24 cents; new gold price announced—£A.15 9s. 10d. per fine ounce.

2*nd October.*—Prime Minister announced establishment of Immigration Planning Council, to assist in smooth and speedy assimilation of migrants into industry and the community.

17*th October.*—Official opening by Governor-General of Snowy River project for the generation of hydro-electric power for defence purposes and for consumption in the Australian Capital Territory.

20th October.—Agreement on rail standardization (replacing original agreement—*see* 2nd August, 1946) signed by Commonwealth and South Australian Governments. (Ratifying Acts assented to later in year.)

Announced that Australian Government had arranged with International Monetary Fund for an initial drawing from fund of $20,000,000.

15th November.—Re-introduction of petrol rationing in all States except Tasmania (*see* 6th June).

8th December.—Announcement of new sugar agreement with United Kingdom. In conformity with existing arrangements United Kingdom would buy all of Australia's exportable sugar surplus up to end of 1952; from 1953 to 1957 arrangements to be made to find a market for 500,000 tons of Australian sugar annually in British Commonwealth preferential market—300,000 tons to be absorbed in United Kingdom market at a guaranteed price to be negotiated annually.

12th December.—Coal Industry Tribunal rejected Miners' Federation claim for reduction of working hours from 40 to 35 per week in coal industry in five States

1950.

Favorable economic conditions were maintained throughout the year. Employment rose every month with the exception of October, when a railway dispute started in Victoria, later extending to South Australia. The total increase in employment (other than rural, household domestic, and defence forces) was approximately 100,000 (70,000 males and 30,000 females). Again the bulk of the increase was due to immigration. Permanent arrivals exceeded permanent departures by about 154,000, 4,000 more than in the previous year. Average earnings per head continued to increase and in December quarter were approximately 15 per cent. higher than in the corresponding quarter of the previous year. Towards the end of the year the Commonwealth Court of Conciliation and Arbitration gave a judgment which brought about an increase of £1 per week in the male basic wage. This operated from the beginning of December, and so had little effect on conditions in 1950. Retail prices increased by about 12 per cent. and wholesale prices by about 16 per cent. during the year.

Secondary production continued to expand during the year, and increases in production as compared with 1949 (affected by the coal strike) were recorded in such basic materials as coal (17 per cent.), pig-iron (29 per cent.), cement (22 per cent.), electricity (14 per cent.). Home production, however, was inadequate and imports of the first three commodities increased. In the case of electricity, black-outs and other restrictions continued, particularly in New South Wales. House building activity continued to increase, with 76,000 houses started, and 62,000 finished. Substantial orders for prefabricated houses were placed overseas by various governmental authorities.

The run of good seasons continued, although exceptionally heavy rainfall several times caused serious flooding in parts of eastern Australia with damage to farm properties, particularly dairy and vegetable farms in coastal areas. Average export prices of wheat remained above the maximum under the International Wheat Agreement (16s. 1d.), ensuring a high return from the large 1949–50 crop, and the year closed with the harvesting of a crop which was well above average although less than the previous year. The 1949–50 wool selling season closed with firm prices, giving an average for the year of more than 63d. The 1950–51 season opened with prices about 50 per cent. higher than at the end of the previous season, and the year closed with prices still tending to rise. Production for 1950–51 was slightly lower than in 1949–50. Meat production in 1950, also, was about 5 per cent. lower, but the production of milk and butter was well maintained.

2nd January.—Uranium production to commence in South Australia. Mining operations already in progress at Radium Hill.

8th February.—Petrol rationing abolished for second time since the end of war. (*See* 6th June and 15th November, 1949.)

Committee of experts appointed to review Commonwealth taxation legislation, particularly in relation to income tax.

4th March.—Loan of £625,000 granted by Commonwealth Government to Burma.

7th March.—Bill introduced in New South Wales Legislative Assembly to create a Transport and Highways Commission to control all State transport services. (Act assented to 27th April.)

15th March.—Social Services Consolidation Bill introduced into Senate, providing for the endowment of the first or only child in each family under 16 years of age, at the rate of 5s. per week. (Act assented to 28th June).

16th March.—Commonwealth Bank Bill introduced in House of Representatives to amend Banking Act 1945, to repeal Banking Act 1947, and to re-establish Commonwealth Bank Board. (Houses failed to agree on measure—*see* 4th October.)

22nd March.—Severest floodings for twenty-five years in south-east corner of New South Wales.

An Australian oversea housing mission, including the Commonwealth Director of Housing and representatives of New South Wales and Victoria, left for Europe to investigate possibility of importing pre-fabricated houses.

30th March.—Electricity Commission Bill, to acquire major electricity organizations in State, introduced in New South Wales Legislative Assembly. (Act assented to 12th July.)

31st March.—Decision at London Wool Conference to continue Joint Wool Organization scheme on present basis for time being. Principle of reserve price plan to replace Joint Organization accepted.

12th April.—Announcement of trade agreement with Argentine.

13th April.—Coal Industry Tribunal, after three months' hearing, granted permission to colliery proprietors in New South Wales, Victoria and Queensland to remove pillar coal by mechanical means.

22nd April.—Commonwealth Government to admit, duty free, all types of prefabricated houses and accessories imported during 1950, irrespective of country of origin.

15th-19th May.—British Consultative Committee meeting in Sydney to consider ways of assisting development of south and south-east Asia in co-operation with other interested countries.

22nd May.—Announcement of British Government's approval of plan to recruit 4,500 British migrants, including 1,000 tradesmen, to serve six years in Australian Regular Army, and then settle in Australia.

13th June.—Bills introduced into House of Representatives providing for a scheme of reserve prices for wool to replace present Joint Organization system—to be financed by a levy on wool. (Act assented to 1st July. Validity challenged in High Court on 24th August, but hearing postponed pending result of referendum of wool-growers on wool levy. *See* 23rd August, 1951.)

16th June.—Abolition of butter rationing.

25th June.—Disastrous floods on north coast of New South Wales.

Attacks by North Korean forces on forces of Republic of Korea.

30th June.—Australian forces in vicinity of Korea placed at disposal of United Nations in Korean conflict.

3rd July.—Tea rationing abolished—end of retail rationing in Australia. Retail price of tea increased by 7d. to 3s. 4d. per pound.

6th July.—Queensland Government to proceed with plans to build Burdekin Dam (to cost £30,000,000) and the Tully Falls Hydro-electric Scheme (£7,000,000).

9th July-23rd August.—Prime Minister visited Malaya, Egypt, Italy, Britain, United States of America, Canada, Japan and New Zealand. In Britain he had informal talks on defence, finance, and foreign policy and Commonwealth co-operation in these fields.

In America he negotiated a $100,000,000 loan for Australia with the International Bank for Reconstruction and Development. Loan will be used to finance capital goods and equipment to enable expansion of specific development projects.

2nd August.—Operations of Snowy Mountains Hydro-electric Scheme for first year have cost £2,500,000. Staff numbered 1,400 and progress up to expectations.

22nd August.—Contract with American company to construct Eildon Dam on Goulburn River, Victoria, at a cost of £11,400,000.

29th August.—Bill introduced in Victorian Legislative Assembly to constitute a Gas and Fuel Corporation to establish, purchase, acquire and operate gas undertakings and to co-ordinate gas production and distribution in Victoria. (Act assented to 6th December.)

7th September.—Loan programme approved by Loan Council for 1950–51 comprised Government loans, £175,400,000, and Local and Semi-Governmental loans, £70,700,000.

Trade agreement with Indonesia announced.

28th September.—Commonwealth Government to pay subsidy of £300 on each prefabricated house imported by State Governments. Orders have been placed by Commonwealth and States for 10,440 houses, the United Kingdom to supply 45 per cent., and, in addition, 4,000 other types of buildings.

4th October.—Commonwealth Bank Bill 1950 (No. 2) introduced in House of Representatives. (Referred by Senate to Select Committee on 14th March, 1951. Double dissolution of Parliament granted 17th March on grounds that Senate had failed to pass Bill. *See* 16th March, 1950.)

12th October.—Commonwealth Court of Conciliation and Arbitration ruled that male basic wage should be increased by £1 and female basic wage from 54 per cent. to 75 per cent. of male rate. Applications must be made to Court for new awards or alterations to existing awards.

Introduction of 1950–51 Budget, providing for expenditure of £691,000,000 and revenue of £631,000,000 on basis of existing legislation, commitments and rates of taxation. Estimated expenditure on Defence Services was £83,000,000, on War and Repatriation (1939–45) Services, £106,000,000 (including £30,600,000 for War Gratuity) and on Capital Works and Services (excluding Defence), £69,000,000. Loan Fund is to provide £25,000,000 for War Service Homes. The Budget included proposals for increased payments to the States, increases in War Pensions, the establishment of a Strategic Stores and Equipment Reserve Trust Account (£50,000,000), a subsidy of £20,000,000 for woollen goods produced in Australia for local use, increases in certain social services benefits, the merging of Income Tax and Social Services Contribution into a single levy, simplification of the method of expression of the rates of Income Tax, concessions to Income Tax payers, etc. Proposals for increased revenue included a scheme for deductions from the proceeds of wool sales to be applied in payment of Income Tax payable (£103,000,000), increases in postal charges and in the rates of sales tax on certain goods. Taking all these proposals into account, revenue for 1950–51 was estimated at £738,700,000, and expenditure at £738,300,000. Loan Fund expenditure for 1950–51 was estimated at £55,100,000.

Death of J. B. Brigden, M.A., distinguished Australian economist.

16th October.—Railway services in Victoria ceased following breakdown in discussions on abolition of passive time and payment of overtime on a daily basis. (Dispute extended to South Australia 23rd October; services resumed in South Australia 20th November; and in Victoria 9th December, after A.C.T.U. Disputes Committee had called off the stoppage.)

26th October.—Completion of trade agreement between Australia and Brazil.

27th October.—Agreement announced for Britain to buy all surplus meat produced in Australia for next fifteen years.

13th November.—Agreement between Australia and Netherlands to bring 25,000 Dutch migrants to Australia in 1951 and larger numbers in future years.

28th November.—Melbourne conference to consider scheme for pre-emption of 100,000,000 lb. of wool for a military reserve for the United States of America decided that scheme was not at present practicable.

20th November.—Australia allocated trade with Japan to value of £40,000,000 in 1950-51 under trade agreement with a number of sterling area countries and Japan. Governor of Commonwealth Bank announced that Banks will be required to adopt a more selective advance policy in order to limit the inflationary effect of expenditure financed from bank advances.

6th December.—Defence (Transitional Provisions) Bill to extend for one year a a number of national security regulations and orders introduced in Senate (Act assented to 16th December).

8th December.—Announcement of functions and personnel of National Security Resources Board, to advise Government on best use of Australia's resources in interests of national security.

20th December.—Commonwealth Government to contribute £31,250,000 to Colombo Plan for Co-operative Economic Development in South and South-East Asia, and £3,500,000 to technical assistance programme.

22nd December.—Five-year migration agreement with Italy under which not more than 15,000 Italians will enter Australia in initial period of operation.

1951.

The year opened with exceedingly favorable economic conditions, with wool prices rising to an all-time record of about 17s. per lb. in March. Towards the end of the season, prices fell sharply from this extreme but the average for the season was 12s. per lb. Prices were still lower at the beginning of the 1951–52 selling season, but even so maintained the high average of 7s. per lb. over the first half of the season. Export prices for wheat remained steady at the high level of more than 16s. throughout the year. Weather conditions generally were favorable, except in Queensland and northern New South Wales, where droughts and, towards the end of the year, fires caused damage to pastures and losses of stock. The average wheat yield (1951–52) was estimated at about 15.5 bushels per acre, but the total crop was considerably lower than in the previous year, owing to the reduced acreages sown. Milk production in 1951 declined by about 10 per cent. Beef production increased slightly, but there was a further sharp reduction in mutton and lamb production, which was below the pre-war level. Total meat production fell very slightly.

These trends in primary production and the general inflationary conditions were reflected in the balance of payments. The trade year 1950–51 ended with an excess of exports of about £240,000,000 (imports, £740,000,000, exports, £980,000,000), but the succeeding trade year opened with the usual excess of imports of the early months continuing, until by December the trend in the balance of payments showed imports running at more than £1,000,000,000 per year and exports at only about £700,000,000. Oversea reserves had been reduced by about £300,000,000 during the last six months.

To help counter inflation, a rigid control of new capital issues was re-imposed in February. A slight increase in bond rate was brought about in May by the issue of a loan at a discount of 1 per cent.; and in August a further increase was made to 3¾ per cent. The Commonwealth Budget was designed to counter inflation and provided for increases in direct and indirect taxes and a surplus of £115,000,000, although at the same time the Commonwealth undertook to provide money out of this surplus to finance State works if sufficient loan money was not forthcoming. Despite the instructions issued late in 1950 about a more restrictive advance policy (*see* 20th November, 1950) bank advances increased by about 25 per cent. during the year.

The increase in employment slowed down during the first half of the year and practically ceased in the second half, despite continued net permanent migration of about 110,000 for the whole year. Prices and earnings, however, continued to increase.

Wholesale and retail prices both increased by about 25 per cent. and cost of living adjustments added 38s. to the basic wage in addition to the increase of £1 at the end of 1950. Average earnings per head rose 30 per cent.

A series of one-day stoppages in the coal mines early in the year caused some temporary falling off in production in industries heavily dependent on coal, such as iron and steel and cement, but over the year production of these commodities was higher than, or up to, the level of the previous year, and black coal production was an all-time record of 17,500,000 tons. Eighty-four thousand houses were started, and 72,000 completed, 10 per cent. and 16 per cent., respectively, higher than in the previous year. About 9,000 imported pre-fabricated houses were delivered out of total orders for 21,000 placed by governmental authorities.

8th January.—Commonwealth Government decision to close down shale oil plant at Glen Davis, New South Wales; production to continue temporarily. (Tenders were called on 14th February, 1952 for the purchase of assets, in whole or part.)

2nd February.—Control of capital issues re-introduced in an effort to reduce inflationary pressure. (*See* 28th May and 2nd August.)

5th February.—Coal miners in eastern States began one day per week stoppages in protest against provisions of the Coal Industry Tribunal's award (20th December, 1950) for payments over and above the ordinary wage rate to employees who worked the full ten days of a pay-period. (Stoppages were discontinued in mid-March, *see* 3rd May.)

Meeting of Governors of central banks of Australia, Ceylon, Ireland, New Zealand, Pakistan, South Africa and the United Kingdom to discuss general banking problems and the international economic situation.

2nd March.—Death of Professor L. F. Giblin, D.S.O., M.C., noted Australian economist.

3rd March.—Commonwealth War Gratuities amounting to £52,800,000 paid to ex-service personnel of the 1939–45 War.

8th March.—Abandonment of Shell (Queensland) Development Pty. Ltd., search for oil in Queensland, which had extended over ten years.

15th March.—Commonwealth Government to grant to States special financial assistance of £15,000,000 for 1950–51.

4th April.—Victorian Government acquired land in Gippsland as the site for the Lurgi Brown Coal Gasification Plant to supply Melbourne with gas.

9th April.—Appreciable drop in wool prices at Sydney after post-war rise to record levels.

30th April.—Electricity zoning commenced in New South Wales, a complete ban on the use of electricity for commerce and industry to apply between 7 a.m. and 9 p.m. on one day each week in five zones. (Subsequently modified, in general, to blackouts within previously specified zones.)

3rd May.—The Coal Industry Tribunal, in a review of certain portions of its decisions on a log of claims covering members of the Australian Coal and Shale Employees' Federation, rejected a claim for a wage increase, and directed that the "attendance allowance" was to stand. (*See* 5th February.)

15th May.—Industrial Arbitration (Amendment) Bill 1951 introduced into New South Wales Legislative Assembly providing for the inclusion in New South Wales industrial awards of three months' long-service leave on full pay after 20 years' continuous service. (Act assented to 12th September.)

17th May.—First wool from Hallstrom Livestock Experimental Station in New Guinea auctioned at Sydney wool sales.

28th May.—Capital Issues Control Regulations (*see* 2nd February) challenged in High Court. (On 12th September, 1952 the High Court declared the Regulations valid.)

17th June.—Announcement of signing of a trade agreement with Western Germany.

21st June.—Commonwealth Bank Bill 1951 providing for the restoration of the Commonwealth Bank Board, introduced into the House of Representatives. (Act assented to 16th July; operated from 21st August.)

29th June.—Conciliation and Arbitration Bill 1951, providing for secret union ballots in elections and on strike issues, greater control by the Arbitration Court, etc., introduced into House of Representatives. (Act assented to 19th July.)

5th July.—Defence Preparations Bill, providing authority until 31st December, 1953 for the Government to make regulations necessary for defence preparations and to adjust the economy to meet the threat of war, introduced into House of Representatives. (Act assented to 19th July.)

17th July.—Large upward cost of living adjustments in the basic wage announced by Commonwealth Court of Conciliation and Arbitration—increase of 13s. in the average weekly wage for the six capital cities.

19th July.—All states except Queensland fixed prices of controlled goods and services at levels ruling on 18th July. (The order was extended in New South Wales on 24th July to cover a wide variety of goods and services, but was relaxed on 20th August and removed on 9th October.)

20th July.—Final liquidation of the stock of the United Kingdom Dominion Wool Disposals Ltd. (Joint Organization) at London Wool Sales.

24th July.—Announcement of letting to a Norwegian firm of the first contract for the design and construction of a dam in the Snowy Mountains Hydro-electric Scheme. (The project, at Guthega, is to cost £5,800,000 and is to be completed by June, 1954.)

28th July.—Commonwealth Government to sell its holdings of 803,596 ordinary shares in Amalgamated Wireless (Australasia) Ltd., comprising 51 per cent. of the issued capital, for 45s. per share.

30th July.—Conference of representatives of Commonwealth and State Governments, employers and trade unions, and other sections of the community, called by the Prime Minister, met in Sydney to discuss means of combating inflation.

First youths to receive call-up notices under National Service Act 1951 commenced training.

2nd August.—New Capital Issues Control Regulations gazetted under the Defence Preparations Act 1951 to replace those operating under the Defence (Transitional Provisions) Act. (*See* 2nd February and 28th May.)

9th August.—The Prime Minister called a conference in Canberra of the Governor of the Commonwealth Bank, the heads of commercial banks, and the Secretary to the Treasury, to discuss bank credit policy.

10th August.—Conference in Canberra between the Government and representatives of insurance companies to consider general financial and investment policy.

14th August.—Announcement by Vacuum Oil Co. Pty. Ltd. that it will build a new oil refinery at Altona, near Melbourne, to be completed in about three years at a cost of £7,500,000.

15th August.—A new company to be formed to develop deposits of pyrites at Nairne, South Australia, for the production of sulphur.

16th–17th August.—The Loan Council approved a rise in the long-term bond rate from $3\frac{1}{8}$ per cent. to $3\frac{3}{4}$ per cent., to apply to the Thirteenth Security Loan for £40,000,000 to be opened on 22nd August. The loan programme for 1951–52, after State works programmes had been reduced by approximately 25 per cent., was decided as follows:—Commonwealth, £23,000,000; States, £202,000,000; Local Authorities, £96,000,000.

21st August.—The Commonwealth Government issued instructions for the reduction of the staff of Commonwealth Departments by 10,000 (5 per cent.).

The Victorian State Electricity Commission's loan, calling for £6,000,000 at $3\frac{1}{2}$ per cent. interest, was closed, under-subscribed by £3,350,000.

23rd August.—Wool-growers rejected by referendum the proposal for a reserve price plan for wool. (*See* 13th June, 1950.)

27th–30th August.—New season's wool auctions in Sydney realize prices about 25 per cent. below those of June.

1st September.—Major hire purchase finance companies in New South Wales and South Australia announced new conditions for hire purchase agreements, increasing deposit rates and reducing repayment periods. (*See also* 8th November.)

3rd September.—Arrival at Port Kembla of first shipment of iron ore from Yampi Sound, Western Australia.

11th September.—Interest rates on loans to local and semi-governmental authorities raised from 3½ per cent. to 4⅛ per cent.

26th September.—Commonwealth Budget for 1951–52 introduced into the House of Representatives, providing for estimated expenditure in 1951–52 of £927,000,000 and revenue of £1,041,500,000, allowing an estimated surplus of £114,500,000 to be paid to the National Debt Sinking Fund. Estimated expenditure from Consolidated Revenue Fund included:—Defence Services, £182,000,000 (including £32,500,000 to be transferred to Strategic Stores and Equipment Reserve); War and Repatriation Services, £107,000,000; Capital Works and Services (excluding Defence), £102,000,000 (including £25,000,000 for War Service Homes). In addition, £4,000,000 from Loan Fund was provided for Capital Works and Services. The Budget included proposals for payments to the States of £161,000,000; discontinuance of the bounty on woollen goods; a total estimated expenditure on subsidies of £33,000,000; and increases in pensions and repatriation benefits. Proposals for increased revenue included a special levy on individual taxpayers equal to 10 per cent. of income tax assessed (expected to yield an extra £25,000,000); modifications to the averaging system of taxing primary producers (£47,000,000); increases in Company Taxation (£28,000,000), Sales Tax (£35,000,000) and Customs and Excise Duties (£24,000,000); discontinuation of the special depreciation allowance on plant to income tax payers.

—October.—Extensive bush fires in Queensland, Northern Territory and northern New South Wales damaged wide areas of country.

7th October.—Announced that Australia is to spend about £700,000,000 on defence during next three years.

12th October.—Details announced of a fifteen-year meat agreement with the United Kingdom to commence on 18th July, 1952.

18th October.—The Victorian Industrial Appeals Court ruled that dairy farm employees would work a 48-hour week instead of the 40-hour week granted in August by the Dairy Farm Workers' Wages Board. The Court increased the basic rates of pay by 10s. to £10 19s. per week, and increased the annual leave granted by the Board from two to three weeks.

Australia signed the Torquay Protocol to the General Agreement on Trade and Tariffs.

Further large upward adjustments in the basic wage announced by the Arbitration Court—average weekly wage for the six capitals increased by 11s. (*See* 17th July.)

8th November.—The Commonwealth Bank ceased to make credit available for the purchase of cars other than new cars for commerce. Private hire purchase firms also restricted credit and shortened repayment periods. (*See also* 1st September.)

12th–23rd November.—The Third Conference of Government Statisticians of the British Commonwealth held in Canberra.

20th November.—Announcement that current Australian gold output may be sold on "premium markets overseas", providing that it is sold for dollars.

—December.—Serious bush fires in the Blue Mountains area of New South Wales.

21st December.—British Commonwealth Sugar Agreement signed in London; Australian export quota fixed at 600,000 tons of raw sugar per annum. The agreement is to operate until 31st December, 1959, prices to be negotiated annually.

APPENDIX.

(Some recent information which has come to hand since the various chapters were sent to press is given hereunder. Much of this information is of a preliminary nature and is therefore subject to revision. For revised and for more advanced information, reference should be made to other publications issued by this Bureau (*see* pages 1317–9), notably the *Monthly Review of Business Statistics* and the *Quarterly Summary of Australian Statistics*.)

CHAPTER II.—PHYSIOGRAPHY.

§ 2. Climate and Meteorology of Australia.

Rainfall : Australian Capital Cities, p. 53.—Rainfall recorded in Australian capital cities during 1951 was as follows :—Canberra, 22.00 ins. ; Perth, 34.14 ins. ; Adelaide, 25.44 ins. ; Brisbane, 33.89 ins. ; Sydney, 53.15 ins. ; Melbourne, 29.85 ins. ; Hobart, 24.57 ins.

CHAPTER III.—GENERAL GOVERNMENT.

§ 1. Scheme of Parliamentary Government.

Number and Salary of Members of the Legislatures, p. 68 (*see also* pp. 14 and 18).—From 1st January, 1952, the Commonwealth Parliamentary Allowance paid to members of both Houses was increased to £1,750 per annum. At the same time new and increased additional allowances ranging from £275 to £1,750 were provided for members holding office (other than Ministers of State), and additional annual allowances ranging from £400 to £900, free of income tax, were provided for all members of both Houses, in respect of the expenses of discharging their duties. Furthermore, the annual appropriation for Ministers was increased to £41,000, the additional allowance of the Prime Minister was increased to £3,500, and an additional allowance of £1,000 was made to each other Minister.

From 1st January, 1952, the annual salary of members of the New South Wales Legislature was increased to £500 (Upper House) and £1,875 (Lower House). From 1st July, 1951, the annual salary of members of the South Australian Legislature was increased to £1,150–£1,225 for both Houses, according to distance of electorate from Adelaide.

§ 2. Parliaments and Elections.

Commonwealth Referenda, p. 71.—*Constitution Alteration (Powers to deal with Communists and Communism) Referendum, 22nd September,* 1951. Details of the voting in this referendum, which resulted in an overall majority and majorities in three States against the proposed amendment, were as follows :—

CONSTITUTION ALTERATION (POWERS TO DEAL WITH COMMUNISTS AND COMMUNISM) REFERENDUM, 22nd SEPTEMBER, 1951.

State.	Votes Recorded in Favour of Proposed Law.		Votes Recorded Against Proposed Law.		Number of Informal Ballot-papers.	Total.
	Number.	Percentage.	Number.	Percentage.		
New South Wales	865,838	47.2	969,868	52.8	25,441	1,861,147
Victoria	636,819	48.7	670,513	51.3	18,692	1,326,024
Queensland	373,156	55.8	296,019	44.2	6,741	675,916
South Australia	198,971	47.3	221,763	52.7	6,519	427,253
Western Australia	164,989	55.1	134,497	44.9	6,167	305,653
Tasmania	78,154	50.3	77,349	49.7	3,093	158,596
Total ..	2,317,927	49.4	2,370,009	50.6	66,653	4,754,589

State Elections, p. 72.—On 21st June, 1952 the first election for the Victorian Legislative Council on the basis of adult suffrage took place. Particulars of electors concerned are as follows :—Electors enrolled, whole State, 1,395,650 ; electors in contested electorates who voted—number, 994,190, proportion, 92.14 per cent.

An election for the Victorian Legislative Assembly took place on 6th December, 1952 (*see* Ministry on p. 1343).

§ 4. Administration and Legislation.

The Sovereign.—On 7th February, 1952 the Prime Minister announced that the Governor-General had directed the notification, for general information, of the intelligence of the death of His Majesty King George the Sixth on 6th February, 1952.

On 7th February, 1952 the Governor-General and members of the Federal Executive Council proclaimed Princess Elizabeth Queen Elizabeth the Second, Queen of this Realm and of all her other Realms and Territories, Head of the Commonwealth, Defender of the Faith, Supreme Liege Lady in and over the Commonwealth of Australia.

Governors-General and Commonwealth Ministries, pp. 78 and 88.—On 3rd September, 1952 the Prime Minister announced the approval by Her Majesty the Queen to the appointment of Field-Marshal Sir William Slim, G.C.B., G.B.E., D.S.O., M.C., as Governor-General of the Commonwealth of Australia, and that the present Governor-General (the Right Honorable Sir William John McKell, G.C.M.G.) would continue in office until Sir William Slim is sworn in.

At 24th September, 1952 the Menzies Ministry, as shown on p. 88, remained unaltered, except for the change in designation on 4th June, 1952 of the Hon. Wilfred Selwyn Kent Hughes, M.V.O., O.B.E., M.C., E.D., from the Minister for the Interior and Minister for Works and Housing to the Minister for the Interior and Minister for Works.

Governors and State Ministers, pp. 89–91.—The Governor and the composition of the Ministry in each State in December, 1952 were as shown on pp. 89–91, with the following exceptions :—

Governors.—South Australia—The Hon. Sir John Mellis Napier, K.C.M.G., Lieutenant-Governor. (Sir John Napier assumed the administration on 19th June, 1952 following the departure of Sir Charles Norrie.)

Ministries.

New South Wales (3rd April, 1952).

Premier, Colonial Treasurer and Minister for Local Government—

The Hon. J. J. Cahill.

Deputy Premier and Minister for Education—

The Hon. R. J. Heffron.

Minister for Housing, Minister for Co-operative Societies and Assistant Treasurer—

The Hon. Clive R. Evatt, Q.C.

Attorney-General—

The Hon. C. E. Martin, Q.C.

Minister of Justice and Vice-President of the Executive Council—

The Hon. R. R. Downing, M.L.C.

Chief Secretary—

The Hon. C. A. Kelly.

Minister for Health—

The Hon. M. O'Sullivan.

Minister for Agriculture—

The Hon. E. H. Graham.

Minister without Portfolio—

The Hon. G. Weir.

Minister for Labour and Industry and Minister for Social Welfare—

The Hon. F. J. Finnan.

Minister for Transport—

The Hon. W. F. Sheahan.

Secretary for Mines and Minister for Immigration—

The Hon. J. G. Arthur.

Secretary for Lands—

The Hon. F. H. Hawkins.

Secretary for Public Works and Assistant Minister for Local Government—

The Hon. J. B. Renshaw.

Minister for Conservation—

The Hon. A. G. Enticknap.

Victoria (17th December, 1952).

Premier and Treasurer—

The Hon. J. Cain.

Chief Secretary—

The Hon. L. W. Galvin.

Minister of Transport and a Vice-President of the Board of Land and Works—

The Hon. P. L. Coleman, M.L.C.

Attorney-General, Minister-in-charge of Prices and Minister-in-charge of Immigration—

The Hon. W. Slater, M.L.C.

Minister of Health—

The Hon. W. P. Barry.

Minister of Agriculture, Minister of State Development and Decentralization, Minister of Water Supply and a Vice-President of the Board of Land and Works—

The Hon. C. P. Stoneham.

Minister-in-charge of Housing and Minister-in-charge of Materials—

The Hon. T. Hayes.

Minister of Labour and Minister of Mines—

The Hon. A. McD. Fraser, M.L.C.

Minister of Education—

The Hon. A. E. Shepherd.

Commissioner of Crown Lands and Survey, Minister of Soldier Settlement, Minister for Conservation and President of the Board of Land and Works—

The Hon. R. W. Holt.

Commissioner of Public Works and a Vice-President of the Board of Land and Works—

The Hon. S. Merrifield.

Minister-in-charge of Electrical Undertakings and Minister of Forests—

The Hon. J. W. Galbally, M.L.C.

Ministers without Portfolio—

The Hon. J. H. Smith.
The Hon. F. R. Scully.

QUEENSLAND (17th January, 1952).

Premier and Chief Secretary; and Vice-President of the Executive Council—

THE HON. V. C. GAIR.

Minister for Transport—

THE HON. J. E. DUGGAN.

Secretary for Public Lands and Irrigation—

THE HON. T. A. FOLEY.

Secretary for Agriculture and Stock—

THE HON. H. H. COLLINS.

Secretary for Labour and Industry—

THE HON. A. JONES.

Attorney-General—

THE HON. W. POWER.

Secretary for Public Instruction—

THE HON. G. H. DEVRIES.

Secretary for Health and Home Affairs—

THE HON. W. M. MOORE.

Secretary for Public Works and Housing—

THE HON. P. J. REMIGIUS HILTON.

Treasurer—

THE HON. E. J. WALSH.

Secretary for Mines and Immigration—

THE HON. E. J. RIORDAN.

The foregoing lists show the complete ministries as reconstituted following the retirement of the Hon. J. McGirr, the Victorian Legislative Assembly election on 6th December, 1952, and the death of the Hon. E. M. Hanlon, respectively. The following particulars refer to changes in the Western Australian Ministry following the death of the Hon. G. B. Wood, M.L.C. :—

WESTERN AUSTRALIA.

Premier, Treasurer and Minister for the North-West—The Hon. D. R. McLarty, M.M.
Minister for Agriculture.—The Hon. Sir Charles Latham, M.L.C. (The latter portfolio now follows that of Housing and Forests and is last on the list.)

§ 6. Cost of Parliamentary Government, pp. 102–3.

The cost of Parliamentary Government, Commonwealth and individual States, for the year 1950–51 was as follows :—

Commonwealth, £1,624,998 (3s. 11d. per head); New South Wales, £430,814 (2s. 8d.); Victoria, £303,417 (2s. 8d.); Queensland, £246,941 (4s. 2d.); South Australia, £181,758 (5s. 1d.); Western Australia, £212,933 (7s. 5d.); Tasmania, £117,208 (8s. 2d.); and total, £3,118,069 (7s. 6d.).

The amounts expended under the major headings for all Governments during 1950–51 were :—Governor-General or Governor, £219,616; Ministry, £187,143; Parliament, £1,998,977; Electoral, £694,321.

§ 7. Government Employees.

Australia, 1952, pp. 103–4.—The number of Government employees in Australia in June, 1952 (1951 in parentheses) was as follows :—

Commonwealth Government: Males, 157,900 (160,700); Females, 45,100 (48,100); Persons, 203,000 (208,800).
State Government and Semi-Government Bodies; Males, 358,300 (347,600); Females, 65,000 (61,000); Persons, 423,300 (408,600).
Local Government Authorities: Males, 61,200 (62,100); Females, 5,100 (4,700); Persons, 66,300 (66,800).
Total: Males, 577,400 (570,400); Females, 115,200 (113,800); Persons, 692,600 (684,200).

CHAPTER IV.—LAND TENURE AND SETTLEMENT.

§ 9. Settlement of Returned Service Personnel : 1939-45 War.

War Service Land Settlement Scheme, pp. 120–3.—At 30th June, 1952 an area of 12,665,660 acres had been submitted by the several States for land settlement. Of this, 10,353,256 acres had been approved by the Commonwealth as suitable for soldier settlement and 8,645,531 acres had actually been acquired by the States. The acreages and holdings allotted to ex-servicemen by the States at 30th June, 1952 were as follows: New South Wales, 5,477,211 (1,856); Victoria, 775,247 (1,822); Queensland, 229,668 (427); South Australia, 186,322 (475); Western Australia, 1,011,224 (639); Tasmania, 75,885 (98); total, 7,755,557 (5,317).

The total expenditure of the War Service Land Settlement Division to 30th June, 1952, £35,780,683, includes War Service Land Settlement, £25,216,987; agricultural loans, £6,200,144; agricultural allowances, £2,255,051; administrative expenses, £725,488; rural training, £1,383,013. Aggregate expenditure in the States and Territories to 30th June, 1952, was as follows:—New South Wales, £4,585,965; Victoria, £2,323,183; Queensland, £1,407,478; South Australia, £9,116,897; Western Australia, £14,216,205; Tasmania, £4,115,660; Northern Territory, £10,748; New Guinea, £4,547.

After deducting repayments of expenditure to 30th June, 1952, £3,577,402 and miscellaneous receipts, £1,972,521, the net expenditure to 30th June, 1952 was £30,230,700.

§ 11. Alienation and Occupation of Crown Lands.

Summary, p. 132.—The alienation and occupation of Crown lands in Australia at 31st December, 1951, were as follows:—

Private Lands—147,984,000 acres (7.77 per cent.) alienated; 34,052,000 acres (1.79 per cent.) in process of alienation.

Crown Lands—1,039,092,000 acres (54.58 per cent.) leased or licensed; 682,604,000 acres (35.86 per cent.) other Crown lands.

CHAPTER V.—TRANSPORT AND COMMUNICATION.

A. SHIPPING.

§ 2. Oversea Shipping and § 5. Interstate Shipping.

Summary of Movements, pp. 135, 142–3.—The following table summarizes the entrances of oversea and interstate shipping in the several States during the year 1950–51:—

OVERSEA AND INTERSTATE SHIPPING: ENTRANCES OF VESSELS, 1950–51.

State of Entry.	Steam.						Sailing.					
	Oversea.				Interstate.(a)		Oversea.		Interstate.(a)		Total Entered.	
	Direct.		Via other States.				Direct and via other States.					
	No.	Net Tons ('000).	No.	Net Tons ('000).	No.	Net Tons ('000).	No.	Net Tons ('000).	No.	Net Tons ('000).	No.	Net Tons ('000).
N.S.W. ..	487	2,086	583	3,119	1,117	3,390	11	(b)	5	(b)	2,203	8,596
Victoria ..	424	1,945	573	3,185	1,153	3,382	2	(b)	135	17	2,287	8,520
Queensland ..	245	840	256	1,368	395	993	8	(b)	..	..	904	3,201
S. Australia ..	160	695	303	1,699	767	2,886	..	..	23	4	1,253	5,283
W. Australia	532	2,880	33	155	484	2,472	..	..	..	..	1,049	5,500
Tasmania ..	30	127	79	393	637	738	..	..	159	21	905	1,279
N. Territory	12	27	..	..	20	30	1	(b)	..	..	33	58
Total ..	1,890	8,600	1,827	9,919	4,573	13,891	22	(b)	322	42	8,634	32,452

(a) Includes oversea vessels on interstate voyages. (b) Under 1,000 tons.

Total oversea shipping entrances into Australia during 1950–51 numbered 1,911 with an aggregate capacity of 8,601,000 net tons. Of these, 1,769 for 8,200,000 net tons were entrances with cargo. Total oversea clearances numbered 1,992 for 8,707,000 net tons, and clearances with cargo 1,430 for 6,169,000 net tons.

§ 6. Tonnage of Cargo.

Oversea and Interstate Cargo, p. 146.—The table hereunder shows particulars of oversea and interstate cargo discharged in and shipped from each State during the year 1950–51 :—

CARGO DISCHARGED AND SHIPPED, 1950–51.

(Tons '000.)

State.	Discharged.				Shipped.			
	Oversea.		Interstate.		Oversea.		Interstate.	
	Tons Weight.	Tons Meas.	Tons Weight.	Tons Meas.	Tons Weight.	Tons Meas.	Tons Weight.	Tons Meas.
New South Wales ..	2,706	1,497	3,100	342	1,172	421	2,778	332
Victoria	3,102	1,489	1,868	210	1,250	417	449	240
Queensland ..	766	382	293	318	738	115	434	116
South Australia ..	1,160	344	1,116	175	1,049	72	2,667	240
Western Australia	1,153	194	245	226	1,125	146	60	78
Tasmania ..	184	83	328	341	71	124	331	320
Northern Territory	13	..	30	..	..	..	4	..
Total ..	9,084	3,989	6,980	1,612	5,405	1,295	6,723	1,326

B. RAILWAYS.

§ 2. Government Railways.

Summary of Operations, pp. 153–160.—The following table gives a summary of the operations of all Government railways open for general traffic during the year 1950–51 :—

GOVERNMENT RAILWAYS : SUMMARY OF OPERATIONS, 1950–51.

Particulars.	N.S.W.	Vic.	Q'land.	S. Aust.	W.Aust.	Tas.	C'wealth.	Aust.
Mileage open (route) 30th June, 1951 miles	6,113	4,686	6,560	2,553	4,228	613	2,201	26,954
Gross revenue .. £'000.	49,448	18,651	19,772	7,315	6,969	1,336	2,153	105,644
Working expenses £'000.	49,168	20,810	19,427	9,992	8,932	2,009	2,434	112,772
Net revenue .. £'000.	280	−2,159	345	−2,677	−1,963	−673	−281	−7,128
Interest .. £'000.	5,620	2,069	1,586	1,028	717	162	295	(a) 11,559
Train-miles run .. '000	(b) 38,112	14,575	(b) 18,562	6,379	7,136	2,071	1,841	88,676
Passenger journeys '000	268,567	141,313	34,145	17,177	11,543	3,182	186	476,113
Goods, etc. carried '000 tons	18,324	7,539	7,182	3,794	3,033	861	591	41,324

(a) Includes Commonwealth proportion of Grafton-South Brisbane Line. (b) Estimated.

C. TRAMWAYS.

Summary of Operations, p. 167.—The following is a summary of the operations of all electric tramways in Australia during the year 1950–51 :—Route mileage open for traffic, 30th June, 567 ; gross revenue, £13,765,000 ; working expenses, £13,940,000 ; net revenue, −£175,000 ; interest, £491,000 ; car-miles run, 71,746,000 ; passenger-journeys, 745,034,000.

D. MOTOR OMNIBUS SERVICES.

Government and Municipal Services, p. 174.—The following is a summary of the operations of government and municipal motor omnibus services in Australia during 1950–51 :—Length of route, 3,994 miles ; gross revenue, £7,717,000 ; working expenses £8,099,000 ; bus-mileage run, 53,895,000 ; passenger-journeys, 339,657,000.

Private Services, p. 175.—The following is a summary of the operations of motor omnibus services under the control of private operators during 1950–51 in the States of New South Wales, Victoria, South Australia and Western Australia, respectively :—Gross revenue, £1,995,000, £1,414,000, £573,000, £1,106,000 ; bus-mileage run, 18,221,000, 19,292,000, 6,031,000, 12,645,000 ; passenger-journeys, 99,740,000, 83,628,000, 12,470,000, 34,346,000.

F. MOTOR VEHICLES.

Motor Vehicle Registrations, pp. 177–9.—Motor vehicles registered at 30th June, 1952 and new motor vehicles registered during 1951–52 were as follows :—

MOTOR VEHICLES : REGISTRATIONS, 1951–52.

(Excluding Defence Service Vehicles.)

State or Territory.	Number of Motor Vehicles Registered at 30th June, 1952.(*a*)				Number of New Motor Vehicles Registered, 1951–52.			
	Motor Cars.(*b*)	Commercial Vehicles. (*c*)	Motor Cycles.	Total.	Motor Cars.(*b*)	Commercial Vehicles. (*c*)	Motor Cycles.	Total.
New South Wales	343,114	199,866	47,552	590,532	41,609	25,839	6,018	73,466
Victoria	347,873	*d* 148,050	37,303	533,226	42,319	22,498	5,439	70,256
Queensland	124,182	107,541	23,302	255,025	13,912	10,180	3,178	27,270
South Australia ..	115,116	53,739	23,458	192,313	13,860	6,847	3,759	24,466
Western Australia ..	64,277	52,643	16,047	132,967	8,840	5,801	2,741	17,382
Tasmania	32,548	16,817	5,739	55,104	4,207	2,073	938	7,278
Northern Territory ..	1,366	2,745	646	4,757	(*e*)	(*e*)	(*e*)	(*e*)
Aust. Capital Territory	3,882	1,846	532	6,260	512	223	82	817
Total	1,032,358	583,247	154,579	1,770,184	*f* 125,319	*f* 73,461	*f* 22,155	*f* 220,935

(*a*) Excludes trailers, road tractors, etc., dealers' plates. (*b*) Includes taxis and hire cars. (*c*) Includes lorries, vans, buses and utility trucks. (*d*) Includes vehicles registered as primary producers' vehicles. (*e*) Not available. (*f*) Excludes Northern Territory.

Drivers' and riders' licences in force at 30th June, 1952 numbered 2,194,167.

Gross revenue derived during 1951–52 from vehicles' registration and motor tax amounted to £15,995,554, from licences, etc., £1,336,530, from miscellaneous receipts, £3,607,266—total, £20,939,350.

At 30th June, 1951 there were 883,610 motor cars on Australian registers, 551,057 commercial vehicles, 145,684 motor cycles—a total of 1,580,351 vehicles. New vehicles registered in Australia during 1950–51 numbered :—Motor cars, 127,670 ; commercial vehicles, 77,934 ; motor cycles, 27,151 ; total, 232,755.

Revised figures for vehicles on the register at 30th June, 1950 are :—Motor cars, 768.558 ; commercial vehicles, 501,721 ; motor cycles, 133,979 ; total, 1,404,258.

During 1950–51 gross revenue derived from vehicles' registration and motor tax amounted to £12,333.075, from licences, etc., £1,141,318, from miscellaneous receipts, £2,403,767—total, £15,878,160.

At 30th June, 1951 drivers' and riders' licences in force numbered 1,985,821.

G. TRAFFIC ACCIDENTS.

Total Accidents Reported, 1950–51, p. 180.—The following table is a summary of the total number of accidents (known to the police) which occurred in public thoroughfares during 1950–51, the number involving casualties and the number of persons killed or injured, in each State and the Commonwealth excluding Northern Territory.

ACCIDENTS (KNOWN TO THE POLICE) WHICH OCCURRED IN PUBLIC THOROUGHFARES : ACCIDENTS RECORDED AND CASUALTIES, 1950–51.

State or Territory.	Total Accidents Reported.(*a*)	Accidents Involving Casualties.	Casualties.	
			Persons Killed.	Persons Injured.(*b*)
New South Wales	19,878	9,694	699	11,817
Victoria	14,861	9,274	581	11,364
Queensland	9,599	4,557	218	5,512
South Australia	6,325	2,001	197	2,332
Western Australia(*c*)	3,580	2,084	167	2,686
Tasmania	2,724	1,013	57	1,212
Australian Capital Territory	294	137	7	172
Total	57,261	28,760	1,926	35,095

(*a*) Total accidents causing death or injury to persons or damage exceeding £10 to property.
(*b*) Persons injured to an extent requiring surgical or medical treatment.
(*c*) Includes for the Metropolitan Area all accidents causing death or injury to persons or damage exceeding £10 to property, and, for the remainder of the State, only those accidents causing fatal or "near-fatal" injuries.

H. AVIATION.

Statistical Summaries, pp. 187–8.—The following is a summary of civil aviation for Australia in 1950–51 :—At 30th June, 1951—Registered aircraft owners, 351 ; registered aircraft, 838 ; pilots' licences—private 1,065, commercial 441, student 1,840, 1st Class airline transport 475, 2nd Class 35, 3rd Class 377 ; flight navigators, 139 ; during 1950–51 —Accidents—persons killed, 13 ; persons injured, 36.

Regular internal services' operations during 1950–51 showed the following results :—Hours flown, 252.333 ; miles flown, 40,680.000 ; paying passengers, 1,685,089 ; paying passenger-miles, 669,087,000. Freight—Actual tons, 53,002 ; ton-miles, 24,198.000. Mail—Actual tons, 2,887 ; ton-miles, 1,333,000.

The operations of services between Australia and oversea countries during 1950–51 were as follows :—Route-miles, 43,633 ; hours flown, 48,947 ; miles flown, 10,500,000 ; paying passengers, 87,599 ; paying passenger-miles, 241,817,000. Freight—Actual tons, 1,976 ; ton-miles, 6,214,000. Mail—Actual tons, 842 ; ton-miles, 4,792,000.

I. POSTS, TELEGRAPHS, TELEPHONES AND WIRELESS.

§ 1. General to § 5. Telephones.

Summary of Operations, pp. 189–203.—The following table is a summary of the operations of the Postmaster-General's Department during the year 1950–51 :—

POSTMASTER-GENERAL'S DEPARTMENT : SUMMARY OF OPERATIONS, 1950–51.

State.	Gross Revenue.	Expenditure.	Total Postal Matter Dealt with. (a)	Money Orders Issued, value.	Postal Notes Issued, value.	Telegrams Dispatched.	Telephones.			
							Lines Connected. (b)	Instruments Connected. (b)	Local Calls.	Trunk Line Calls.
	£'000.	£'000.	mil.	£'000.	£'000.	'000.	'000.	'000.	mil.	mil.
New South Wales	17,836	28,075	611.3	20,929	5,152	12,458	330	466	403	25
Victoria ..	12,998	30,261	437.2	10,471	4,552	7,874	270	382	278	20
Queensland ..	6,163	10,550	194.0	6,042	1,161	5,699	110	157	112	12
South Australia	3,833	6,515	118.2	2,752	979	4,165	75	103	68	8
Western Australia	2,756	4,151	103.2	2,502	643	3,351	48	67	51	4
Tasmania ..	1,191	2,204	61.9	1,414	259	920	25	34	20	3
Australia ..	44,777	c89,700	1,525.8	44,110	12,746	d34,467	864	1,209	93	72

(a) Comprises (in millions) :—Letters, Cards, etc., 1,228.3 ; Newspapers and Packets, 257.4 ; Parcels, 20.7 ; Registered Articles other than Parcels, 19.4. (b) At 30th June, 1951. (c) Includes £7,938,000 Central Office expenditure. (d) Excludes international telegrams—dispatched, 1,395,574 received, 1,321,741.

§ 6. Radio Telegraphy and Telephony.

Radio-communication Stations Authorized, p. 207.— The following radio-communication stations were authorized in Australia and Papua-New Guinea at 30th June, 1951 :— Receiving and transmitting stations—aeronautical, 70 (7) ; coast, 33 (7) ; land, 1,747 (198) ; mobile (general), 2,361 (49) ; ship, 656 ; aircraft, 218 ; other mobile stations, 146 ; and miscellaneous, 60. In addition, there were 371 land and 207 mobile (general) stations for the purpose of receiving only. The figures in parentheses refer to Papua-New Guinea and are included in the totals preceding them.

Broadcast Licences Issued, p. 207.—The following table shows the number of broadcast licences issued at 30th June, 1951 and, for broadcast listeners' licences only, as at 30th June, 1952 also.

BROADCAST LICENCES ISSUED.

State in which Issued.	30th June, 1951.					30th June, 1952.
	Broadcasting.		Broadcast Listeners'.		Experimental.	Broadcast Listeners'. (c)
	National Stations.	Commercial Stations.	One Receiver.	More than one Receiver.		
New South Wales	(a) 12	35	674,576	74,195	1,004	736,565
Victoria	(a) 7	19	522,502	63,891	931	520,364
Queensland(b)	(a) 14	20	270,587	17,432	314	279,852
South Australia	4	8	203,473	39,546	313	207,527
Western Australia	(a) 7	12	139,669	19,767	184	141,950
Tasmania	3	8	68,149	9,594	94	68,832
Northern Territory	2	..	1,222	70	14	1,164
Australian Capital Territory ..	1	1	4,656	331	12	4,790
Total	50	103	1,884,834	224,826	2,866	1,961,044

(a) Includes short-wave stations : New South Wales, 1 ; Victoria, 3 ; Queensland, 2 ; Papua, 1 (also 1 medium wave) ; Western Australia, 2. (b) Includes Papua. (c) *See* below.

Broadcasting.—*Broadcast Listeners' Licences, p.* 209. The fees payable for broadcast listeners' licences up to 31st December, 1951 are shown on page 209 of this volume. Consequent upon an amendment to the Broadcasting Act which was proclaimed to take effect from 1st January, 1952, the fee payable for a broadcast listener's licence or a renewal thereof is :—Zone 1, £2 ; Zone 2, £1 8s. That portion of the Act relating to the payment of additional fees for radio receivers in excess of one has been repealed and the licence now applies to every broadcast receiver which is in possession of the holder of a licence or of a member of his family at the address specified in the licence and/or ordinarily kept at that address or installed in a vehicle which is ordinarily kept at that address while not in use.

Free licences are granted to blind persons and to schools. Invalid and age pensioners who live alone or with another such pensioner are required to pay only one quarter the ordinary fee.

CHAPTER VI.—EDUCATION.

§ 3. State Schools, § 4. Private Schools and § 9. Technical Education.

Returns for Year 1950, pp. 211-12, 215-17, and 239.—The following table gives a summary of State, Private and Technical schools in each State for the year 1950 :—

EDUCATION : SUMMARY, 1950.

Particulars.		N.S.W.	Vic.	Q'land.	S. Aust.	W.Aust.	Tas.	N. Ter.	Aust.
State Schools—									
Schools ..	No.	2,578	2,099	1,556	710	517	325	5	7,790
Teachers ..	,,	13,146	9,694	5,739	3,404	2,461	1,602	39	36,085
Net enrolment	,,	414,918	245,988	164,803	88,809	(a) 69,181	42,602	(a)1,158	1,027,459
Average weekly enrolment ..	,,	378,710	229,332	155,483	84,597	69,181	39,651	1,158	958,112
Average daily attendance ..	,,	327,946	206,744	132,578	76,733	63,378	35,722	1,022	844,123
Net Expenditure—									
Maintenance	£'000	10,830	7,764	3,964	2,435	2,284	1,083	40	28,400
Buildings ..	,,	2,164	2,365	633	545	676	402	14	6,799
Total ..	,,	12,994	10,129	4,597	2,980	2,960	1,485	54	35,199
Private Schools—									
Schools ..	No.	729	476	253	148	204	58	2	1,870
Teachers ..	,,	5,776	3,147	1,819	938	843	375	11	12,909
Enrolment ..	,,	124,370	91,517	43,239	19,655	21,615	8,878	369	309,673
Average attendance	,,	110,176	(b) 81,477	38,748	17,409	19,970	7,453	323	275,562
Technical Schools—									
Schools ..	No.	42	36	12	27	15	9	..	141
Teachers ..	,,	2,450	2,268	481	620	375	287	..	6,481
Students ..	,,	69,085	42,031	16,901	17,099	11,349	5,099	..	161,564
Total Expenditure	£'000	2,175	1,988	363	333	343	97	..	5,299

(a) Average weekly enrolment. (b) Estimated.

§ 6. Universities.

Teaching and Research Staff, etc., pp. 219-25.—The following table gives a summary of the University statistics for the year 1951 :—

UNIVERSITIES : SUMMARY, 1951.

Particulars.	University—							University Colleges.		Total.
	Sydney.	Melbourne.	Queensland.	Adelaide.	Western Australia.	Tasmania	New South Wales University of Technology.	New England.	Canberra.	
Teaching and Research Staff—										
Professors	51	40	28	26	13	16	9	..	5	188
Others	856	522	379	250	117	61	596	68	45	2,894
Total Students	8,108	8,234	4,014	4,345	1,728	554	4,127	228	(b) 333	31,671
Commonwealth Reconstruction Training Students (included above)	1,280	1,455	701	570	240	71	270	5	(c) 70	4,662
Degrees Conferred ..	1,962	1,248	471	441	259	117	..	..	..	4,498
Receipts (or Income)—General Activities(a)—	£'000.	£'000.	£'000.	£'000.	£'000.	£'000.	£'000.	£'000.	£'000.	£'000.
Government Grants ..	698	832	436	316	339	187	556	125	50	3,539
Total	1,173	1,196	597	456	368	204	584	152	56	4,786
Extra Activities.. ..	278	328	79	61	125	37	22	2	2	934
Payments (or Expenditure)—										
General Activities(a)—										
Administration ..	121	80	34	28	26	19	50	16	10	384
Teaching	754	705	402	329	199	120	475	59	36	3,079
Total	1,109	1,115	589	482	319	179	584	139	53	4,569
Extra Activities ..	170	291	100	67	112	37	2	1	4	784

(a) These figures are presented by each University on a receipts (or income) and payments (or expenditure) basis and are not suitable for the construction of a profit and loss statement or revenue account. (b) Excludes 8 students enrolled at Melbourne University. (c) Excludes 2 students enrolled at Melbourne University.

CHAPTER VII.—PUBLIC JUSTICE.

§ 1. Lower (Magistrates') Courts, § 2. Superior (Judges') Courts, § 3. Civil Courts, § 4. Police and Prisons and § 5. Cost of Administration of Justice.

Convictions, Divorces, Bankruptcies, Police, Prisons, etc., pp. 258, 260, 262, 266, 270 and 272–4.—The following table is a summary of the more important statistics of this chapter for the latest year for which the information is available :—

PUBLIC JUSTICE : SUMMARY, 1950.

Particulars.	N.S.W.	Vic.	Qld.	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Convictions for serious crime at Magistrates' Courts .. No.	14,141	5,204	(a)2,699	(a)1,654	2,901	810	(a) 43	183	27,635
Convictions at Superior Courts—									
Offences against the Person .. No.	(a) 362	190	(a) 136	81	49	37	(a) 16	5	876
Offences against Property .. No.	(a) 914	495	(a) 201	103	94	104	(a) 20	43	1,974
Other offences ,,	(a) 23	37	(a) 9	23	6	7	(a) 8	1	114
Total .. ,,	(a)1,299	722	(a) 346	207	149	148	(a) 44	49	2,964
Convictions for Drunkenness .. .. No.	78,477	21,003	a 26,855	a 5,846	6,046	639	(a) 644	426	139,936
Divorces and Judicial Separations (1951) No.	3,332	1,730	708	642	683	194	13	25	7,327
Bankruptcies (1950–51) No.	139	72	60	47	39	20	3	..	380
Liabilities £	352,929	174,120	200,561	154,445	128,945	19,420	9,057	..	1,039,477
Assets £	275,368	84,158	90,707	114,837	81,593	6,438	16,546	..	669,647
Police .. .. No.	4,449	2,751	(a)2,220	(a) 972	(a) 787	(a) 392	(a) 61	45	11,677
Prisons .. .. ,,	(a) 15	9	(a) 7	15	(a) 21	(a) 2	(a) 2	..	71
Prisoners in Gaol .. ,,	(a)1,885	981	(a) 454	261	(a) 342	(a) 114	(a) 52	..	4,089
Net Expenditure—1950–51—									
Justice £'000	533	300	125	—45	8	58	..	..	979
Police .. ,,	3,241	2,301	2,037	781	685	317	..	..	9,362
Prisons .. ,,	566	278	109	84	98	42	..	..	1,177

(a) Year 1950–51.

NOTE.—Minus sign (—) indicates excess of receipts over expenditure.

CHAPTER VIII.—PUBLIC HEALTH AND RELATED INSTITUTIONS.

A. PUBLIC HEALTH.

§ 4. Control of Infectious and Contagious Diseases.

Notifiable Diseases, p. 290.—The following table shows for each State and Territory the diseases notifiable and the notifications made during 1951 :—

DISEASES NOTIFIABLE IN EACH STATE AND TERRITORY AND NOTIFICATIONS FOR THE YEAR ENDED 31st DECEMBER, 1951.

Disease.	N.S.W.	Vic.	Qld.	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Acute rheumatism† ..	*	*	*	*	8	*	*	*	8
Amoebiasis‡	*	19	1	1	7	2	..	..	30
Anchylostomiasis ..	*	1	47	..	13	..	15	1	77
Anthrax	*	..	..	..	..	..	..	..	..
Bilharziasis	*	..	..	..	..	1	..	..	1
Brucellosis	2	14	7	..	8	..	..	..	31
Cholera	..	..	..	..	..	..	..	..	..
Chorea	*	*	*	*	..	*	*	*	..
Dengue	*	*	*	*	1	*	..	*	1
Diarrhoea, infantile§ ..	*	*	298	*	46	25	105	*	474
Diphtheria	362	191	137	44	271	8	..	..	1,013
Dysentery, bacillary ..	*	62	144	3	56	..	5	25	295
Encephalitis	4	29	6	..	..	1	..	..	40
Filariasis ..	*	*	2	..	..	..	..	..	2
Homologous serum jaundice†	*	*	*	*	..	*	*	*	..
Hydatid	*	20	*	*	1	1	*	..	22
Infective hepatitis†§ ..	*	*	*	*	467	..	8	*	475
Lead poisoning† ..	*	*	2	*	..	*	*	*	2
Leprosy	4	2	2	..	48	..	26	..	82
Leptospirosis	*	*	87	*	..	*	*	*	87
Malaria	*	3	28	..	7	..	5	..	43
Meningococcal infection ..	99	107	35	12	20	17	2	5	297
Ophthalmia	*	*	*	*	23	*	42	*	65
Ornithosis†	*	..	*	..	..	*	*	*	..
Paratyphoid	..	1	..	2	3	..	..	..	6
Plague	..	..	..	..	..	..	..	..	..
Poliomyelitis	1,528	421	989	1,491	96	182	10	19	4,736
Puerperal Fever ..	8	1	19	14	4	3	1	..	50
Rubella‖	*	223	12	*	137	1	1	16	390
Salmonella infection ..	*	*	*	*	16	*	*	*	16
Scarlet Fever	866	937	256	258	179	150	1	7	2,654
Smallpox	..	..	..	..	..	..	..	..	..
Tetanus	*	8	22	*	12	*	1	*	43
Trachoma†	*	..	*	*	..	*	1	..	1
Trichinosis†	*	*	*	..	..	*	*	*	..
Tuberculosis	1,746	1,006	699	376	514	224	63	7	4,635
Typhoid Fever.. ..	12	9	10	3	11	7	..	..	52
Typhus—flea, mite or tick borne	15	..	61	8	24	..	..	..	108
Typhus—louse borne ..	..	..	..	..	..	..	..	..	..
Yellow Fever	..	..	..	..	..	..	..	..	..

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* Not notifiable. † Acute rheumatism, chorea, homologous serum jaundice, infective hepatitis, lead poisoning, ornithosis, trachoma and trichinosis were made notifiable in Western Australia in February, 1951. ‡ Amoebiasis substituted for dysentery, amoebic. § Diarrhoea, infantile and infective hepatitis were made notifiable in Tasmania in February, 1951. ‖ Rubella was made notifiable in Victoria on 27th July, 1951.

B. INSTITUTIONS.

§ 2. Public Hospitals (other than Mental Hospitals).

Number, Staff, etc., pp. 301–2.—The following table gives a summary of details relating to public hospitals in each State for the year 1950–51 :—

PUBLIC HOSPITALS : SUMMARY, 1950–51.

Particulars.	N.S.W.	Vic. (*a*)	Q'land. (*b*)	S. Aust.	W.Aust.	Tas.	A.C.T.	Total.
Hospitals .. No.	255	98	126	60	94	25	1	659
Medical staff .. ,,	3,360	1,569	503	449	296	182	23	6,382
Nursing staff ..	9,065	5,186	1,236	1,762	1,781	834	71	22,935
Beds and cots .. ,,	18,536	10,128	7,995	3,374	4,015	1,943	184	46,175
In-patients treated during year .. No.	362,665	170,554	163,233	57,401	72,089	32,599	3,998	862,539
Inmates at end of year ,,	13,620	6,862	6,046	2,316	2,549	1,181	158	32,732
Average daily resident ,,	13,580	7,113	5,774	2,326	2,616	1,247	149	32,805
Revenue—	£'000.	£'000.	£'000.	£'000.	£'000.	£'000.	£'000.	£'000.
Government aid ..	9,494	(*c*) 4,525	2,885	1,376	1,907	783	132	21,101
Commonwealth hospital benefits	(*d*) 847	(*c*) 1,567	898	320	325	199	25	4,181
Public subscriptions ..	128	893	7	92	36	7	..	1,163
Fees	1,594	1,010	309	243	171	82	7	3,416
Total	12,301	8,218	4,137	2,237	2,450	1,102	164	30,609
Expenditure—								
Salaries and wages ..	7,580	3,368	2,357	1,244	1,144	648	70	16,411
Buildings' upkeep, etc.	407	220	104	118	61	17	5	932
Total	12,201	8,428	4,954	2,278	2,433	1,096	164	31,554

(*a*) Year ended 31st March, 1951. (*b*) Year 1949–50. (*c*) Estimated. (*d*) Portion only of amount allocated to Public hospitals.

§ 4. Mental Hospitals.

Number, Staff, etc., pp. 303–5.—The following table gives a summary of details relating to mental hospitals in each State for the year 1950–51 :—

MENTAL HOSPITALS : SUMMARY, 1950–51.

Particulars.	N.S.W.	Vic. (*a*)	Q'land. (*b*)	S. Aust.	W.Aust. (*a*)	Tas.	Total.
Hospitals .. .. No.	13	9	4	2	4	1	33
Medical staff .. .. ,,	45	68	10	8	5	2	138
Nursing staff .. .. ,,	1,909	1,308	806	387	248	168	4,826
Beds and cots .. .. ,,	12,013	6,636	4,218	2,377	1,506	762	27,512
In-patients treated .. ,,	14,250	8,409	5,083	2,762	1,744	999	33,247
Inmates at end of year .. ,,	12,503	7,472	4,295	2,411	1,567	682	28,930
Average daily resident .. ,,	11,040	6,410	4,064	2,312	1,490	680	25,996
Revenue—	£'000.	£'000.	£'000.	£'000.	£'000.	£'000.	£'000.
Fees	114	97	35	16	24	2	288
Mental institution benefits ..	198	147	..	33	13	9	400
Other	(*c*) 73	17	1	26	6	..	123
Total	385	261	36	75	43	11	811
Expenditure—							
Salaries and wages	1,326	825	506	275	207	119	3,258
Upkeep, etc., buildings, etc. ..	34	107	9	34	20	6	210
Other	978	719	349	177	112	79	2,414
Capital expenditure	304	223	22	25	..	..	574
Total	2,642	1,874	886	511	339	204	6,456

(*a*) Year 1950. (*b*) Includes Epileptic Home. (*c*) Includes £30,000 Commonwealth Hospital Benefits.

CHAPTER IX.—WELFARE SERVICES.

A. COMMONWEALTH SOCIAL SERVICE BENEFITS.

§ 1. Introduction.

Social and Health Services, p. 307.—The following table shows particulars of payments of social and health services in each State during 1951–52 :—

COMMONWEALTH EXPENDITURE ON SOCIAL AND HEALTH SERVICES, 1951–52.

(£'000.)

Social and Health Services.	N.S.W. (*a*)	Vic.	Q'land.	S. Aust. (*b*)	W.Aust.	Tas.	Total.
Age and Invalid Pensions	25,075	14,449	8,836	5,180	4,106	2,142	59,788
Funeral Benefits	108	81	37	22	19	9	276
Child Endowment	17,794	12,015	7,363	4,149	3,478	1,819	*c* 46,625
Maternity Allowances	1,182	836	490	284	241	123	(*d*)3,157
Widows' Pensions	2,315	1,390	905	450	367	188	5,615
Unemployment and Sickness Benefits—							
Unemployment	55	11	115	1	4	1	187
Sickness	263	181	123	70	49	24	710
Special (*e*)	33	47	15	6	6	4	111
Hospital Benefits	2,698	1,575	1,092	556	511	251	6,683
Tuberculosis Campaign (*f*)	1,622	1,103	360	302	313	179	3,879
Community Rehabilitation	70	129	46	71	40	5	361
Pharmaceutical Benefits	3,027	2,071	861	695	473	135	(*g*)7,327
National Health Services—							
Medical Benefits to Pensioners	492	226	119	105	75	19	1,036
Pharmaceutical Benefits to Pensioners	187	61	40	33	30	7	358
Nutrition of Children	443	140	..	75	67	90	815
Miscellaneous Services	30	25	50	11	16	10	(*h*) 162
Mental Institutions Benefits	203	150	103	35	18	9	518
Total	55,597	34,490	20,555	12,045	9,813	5,015	137,608

(*a*) Includes Australian Capital Territory. (*b*) Includes Northern Territory. (*c*) Includes £7,000 paid abroad. (*d*) Includes £1,000 paid abroad. (*e*) Includes payments to migrants. (*f*) Includes allowances and reimbursements to States. (*g*) Includes £65,000 administration. (*h*) Includes £20,000 administration.

§ 2. Age and Invalid Pensions, § 3. Maternity Allowances, § 4. Child Endowment, and § 5. Widows' Pensions.

General, pp. 310–17.—The following table gives a summary of age and invalid and widows' pensions, maternity allowances and child endowment for the year 1951–52 :—

SOCIAL SERVICES : SUMMARY, 1951–52.

(Number.)

Particulars.		N.S.W. (*a*)	Vic.	Q'land.	S. Aust. (*b*)	W.Aust.	Tas.	Aust.
Age and Invalid Pensions—								
Age Pensions in force	**No.**	145,057	87,845	50,718	31,931	24,782	11,716	352,049
Invalid Pensions in force	,,	32,396	13,973	10,571	4,297	3,964	2,762	67,963
Maternity Allowances—								
Claims paid	**No.**	72,688	52,144	30,737	17,380	15,074	7,626	*c* 195,722
Child Endowment—								
Family claims in force	**No.**	476,684	317,591	173,179	109,284	85,971	42,424	*d*1205421
Endowed children	,,	971,586	642,693	378,559	222,127	183,257	94,430	*d*2493246
Widows' Pensions—								
Pensions in force	**No.**	16,486	10,222	6,770	3,246	2,676	1,358	40,758
Children for whom pensions paid	,,	7,533	3,696	3,091	1,292	1,116	696	17,424

(*a*) Includes Australian Capital Territory. (*b*) Includes Northern Territory. (*c*) Includes 73 claims paid abroad. (*d*) Includes 288 claims and 594 children abroad.

The rates which operated from 2nd October, 1952 are as follows :—Age and Invalid Pensions, £3 7s. 6d. per week ; wife of Invalid Pensioner, £1 15s. per week ; Widows' Pensions—" A " Class, £3 12s. 6d. per week, " B " Class, £2 15s. per week, " C " Class, £2 15s. per week and " D " Class, £2 15s. per week.

§ 6. Unemployment and Sickness Benefits.

Statistics, pp. 318–20.—The following table shows the number of persons in each State admitted to benefit during the year, and on benefit at the end of the year, 1951–52 :—

UNEMPLOYMENT AND SICKNESS BENEFITS : PERSONS ADMITTED TO AND ON BENEFIT, 1951–52.

State.	Unemployment.		Sickness.		Special.(*a*)		Total.(*a*)		
	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Persons.
					NUMBER ADMITTED TO BENEFIT, 1951–52.				
N.S. Wales(*b*) ..	7,680	3,258	14,904	4,648	710	342	23,294	8,248	31,542
Victoria ..	2,628	573	9.151	2,687	415	347	12,194	3,607	15,801
Queensland ..	9,973	2,169	6,915	1,485	423	97	17,311	3,751	21,062
Sth. Australia(*c*)	227	83	3,986	928	202	49	4,415	1,060	5,475
W. Australia ..	591	132	3,540	863	89	26	4,220	1,021	5,241
Tasmania ..	152	20	1,631	305	51	35	1,834	360	2,194
Total ..	21,251	6,235	40,127	10,916	1,890	896	63,268	18,047	81,315
					NUMBER ON BENEFIT, 30TH JUNE, 1952.				
N.S. Wales(*b*) ..	3,376	1,237	1,913	620	169	320	5,458	2,177	7,635
Victoria ..	875	258	1,207	371	75	220	2,157	849	3,006
Queensland ..	1,450	605	721	193	47	141	2,218	939	3,157
Sth. Australia(*c*)	103	50	538	153	27	33	668	236	904
W. Australia ..	211	25	354	97	13	42	578	164	742
Tasmania ..	93	11	175	36	8	53	276	100	376
Total ..	6,108	2,186	4,908	1,470	339	809	11,355	4,465	15,820

(*a*) Excludes benefits granted to migrants. (*b*) Includes Australian Capital Territory. (*c*) Includes Northern Territory.

The Unemployment and Sickness Benefit rates were increased from and including the benefit week ended 27th September, 1952, and are as follows :—Adult or Married Person, £2 10s. per week ; Dependent Spouse, £2 per week ; Juveniles 16–17 years, £1 10s. per week ; Juveniles 18–20 years, £2 per week ; First child under 16 years, 5s. per week ; Claimant's Housekeeper, £2 per week. For sickness benefit purposes the exemption of friendly society payments was increased to £2 per week.

CHAPTER XI.—LABOUR, WAGES AND PRICES.

A. RETAIL PRICES AND PRICE INDEXES.

§ 7. Tabular Statements of Retail Price Index-Numbers.

All Items (" C " Series) Retail Price Index, p. 387.—The following table shows the " C " Series index-numbers for the March to December quarters, 1952 for each capital city and for the six capital cities combined, showing separate series for each of the four main groups of items :—

ALL ITEMS (" C " SERIES) RETAIL PRICE INDEX-NUMBERS (*a*) : CAPITAL CITIES

(*Base of each Group : Weighted average of Six Capital Cities,* 1923–27 = 1,000.)

Period.	Sydney.	Melbourne.	Brisbane.	Adelaide.	Perth.	Hobart.	Six Capitals. (*b*)
GROUP I.—FOOD AND GROCERIES.							
Mar. Qtr., 1952 ..	2,526	2,306	2,290	2,267	2,242	2,344	2,404
June " " ..	2,727	2,539	2,334	2,439	2,308	2,445	2,567
Sept. " " ..	2,705	2,584	2,367	2,480	2,448	2,564	2,592
Dec. " " ..	2,657	2,547	2,321	2,334	2,439	2,593	2,542
GROUP II.—HOUSING (4 AND 5 ROOMED HOUSES).(*c*)							
Mar. Qtr., 1952 ..	1,059	983	951	968	1,176	1,067	1,023
June " " ..	1,089	984	952	1,017	1,185	1,075	1,041
Sept. " " ..	1,137	984	963	1,101	1,189	1,080	1,070
Dec. " " ..	1,188	985	967	1,132	1,190	1,092	1,094
GROUPS I. AND II.—FOOD, GROCERIES AND HOUSING (" B " SERIES INDEX).							
Mar. Qtr., 1952 ..	1,948	1,821	1,763	1,755	1,821	1,841	1,860
June " " ..	2,082	1,927	1,789	1,879	1,865	1,906	1,966
Sept. " " ..	2,088	1,954	1,814	1,937	1,951	1,979	1,992
Dec. " " ..	2,078	1,932	1,788	1,860	1,946	2,002	1,971
GROUP III.—CLOTHING.							
Mar. Qtr., 1952 ..	3,025	2,957	2,923	3,015	3,027	2,995	2,992
June " " ..	3,098	3,112	3,002	3,115	3,152	3,090	3,099
Sept. " " ..	3,125	3,109	3,049	3,131	3,141	3,130	3,115
Dec. " " ..	3,214	3,162	3,088	3,171	3,172	3,142	3,177
GROUP IV.—MISCELLANEOUS.							
Mar. Qtr., 1952 ..	1,877	1,786	1,726	1,886	1,813	1,786	1,828
June " " ..	1,997	1,900	1,856	2,010	1,946	1,894	1,949
Sept. " " ..	2,020	2,033	1,883	2,103	1,997	1,998	2,018
Dec. " " ..	2,024	2,076	1,897	2,100	2,023	2,003	2,035
GROUPS I. TO IV.—ALL ITEMS (" C " SERIES INDEX).							
Mar. Qtr., 1952 ..	2,167	2,059	2,006	2,052	2,080	2,080	2,098
June " " ..	2,284	2,177	2,064	2,170	2,158	2,159	2,206
Sept. " " ..	2,298	2,218	2,094	2,225	2,216	2,231	2,238
Dec. " " ..	2,312	2,224	2,089	2,188	2,225	2,248	2,243

(*a*) The index-numbers given in the separate parts of the table cannot be compared with each other in order to show the relative cost of food and groceries, housing, etc., since the cost in 1923–27 in each group or combination is made equal to 1,000. (*b*) Weighted average. (*c*) The rent index-numbers measure the proportionate rise and fall in the average weekly rentals paid for houses of four and five rooms taking corresponding houses throughout. *See* footnote (*b*) on page 383.

B. WHOLESALE PRICES AND PRICE INDEXES.

§ 2. Wholesale Price (Basic Materials and Foodstuffs) Index.

Index-numbers, p. 396.—Index-numbers for each group of commodities and for all groups combined for the index of wholesale prices of basic materials and foodstuffs are shown below for the year 1951–52 :—

WHOLESALE PRICE (BASIC MATERIALS AND FOODSTUFFS) INDEX-NUMBERS.

(*Base of each Group : Average of three years ended June*, 1939 = 100.)

Period.	Basic Materials.								Basic Materials and Foodstuffs.		
	Metals and Coal.	Oils, Fats and Waxes.	Textiles.	Chemicals.	Rubber and Hides.	Building Materials.	Total.	Foodstuffs and Tobacco.	Goods principally Imported.	Goods principally Home Produced.	Total All Groups.
1951–52—											
July	288	209	490	300	301	314	283	283	271	289	283
August	308	209	604	301	351	316	299	292	274	304	295
September ..	314	212	566	305	348	320	301	282	276	297	291
October ..	320	213	698	305	347	344	315	266	282	291	288
November ..	341	223	633	307	323	362	324	261	289	290	290
December ..	344	223	616	313	271	364	322	270	286	298	294
January ..	346	223	605	313	270	365	323	266	286	294	292
February ..	363	223	560	317	264	394	332	280	295	307	304
March	366	223	504	327	261	394	330	289	295	313	308
April	370	223	517	327	262	395	332	294	296	318	312
May ..	379	230	559	327	278	433	347	294	301	325	318
June	379	230	570	331	296	433	349	298	301	330	321
Year 1951–52 ..	343	220	577	314	298	370	321	281	288	305	300

§ 3. Melbourne Wholesale Price Index.

Index-numbers, p. 398.—The following are the index-numbers for each group, and for all groups combined, of those commodities included in the series for the year 1951 :—

Index-numbers—Melbourne Wholesale Prices (Base of each Group : Year 1911 = 1,000), Year 1951 ; Metals and Coal, 5,080 ; Wool, Cotton, Leather, etc., 7,943 ; Agricultural Produce, etc., 4,512 ; Dairy Produce, 2,930 ; Groceries, 2,850 ; Meat, 6,438 ; Building Materials, 7,074 ; Chemicals, 3,294 ; All Groups, 5,098.

D. WAGES.

The Commonwealth Conciliation and Arbitration Tribunal.

Under placitum (xxxv) of section 51 of the Commonwealth of Australia Constitution, the Commonwealth Parliament is empowered to make laws with respect to " conciliation and arbitration for the prevention and settlement of industrial disputes extending beyond the limits of any one State ". The Parliament has made such a law, viz., the Conciliation and Arbitration Act.

This Act defines "an industrial dispute" as a "dispute (including a threatened, impending or probable dispute) as to industrial matters, which extends beyond the limits of any one State and a situation which is likely to give rise to a dispute as to industrial matters which so extends.". Such disputes are dealt with, in part, by a Court constituted under the Act, and otherwise by Conciliation Commissioners appointed under the Act. At the present time, the Court comprises a Chief Judge and six other Judges, whilst there is a Chief Conciliation Commissioner and fifteen other Conciliation Commissioners.

The Court deals with industrial disputes insofar as they concern the standard hours of work in an industry, the basic wage for both adult males and adult females and questions relating to long service leave with pay, but all other matters in dispute are dealt with by a Conciliation Commissioner. There is, however, provision for a Conciliation Commissioner to refer any dispute or any part of a dispute to the Court for determination, but a Conciliation Commissioner is only entitled to so refer a matter if he is of the opinion, and if the Chief Judge concurs in that opinion, that the matter is one of such importance that, in the public interest, it should be dealt with by the Court.

In addition to the functions outlined above, the Act empowers the Court to make orders concerning the interpretation, and relating to the enforcement, of orders and awards. The Act also makes provision for the registration of associations of employees and employers, and certain powers in connexion therewith are, by the Act, given to the Court.

Although, in certain circumstances, there is a right of approach to the High Court with respect to decisions of the Court, the circumstances are very limited, and, for practical purposes, it can be said that decisions given by the Court are final. Decisions given by a Conciliation Commissioner, however, may be made the subject of appeal to the Court (i.e., the Arbitration Court) provided the party desiring to appeal can satisfy the Chief Judge, by way of application for leave to appeal, that the order or award the subject of the application deals with a matter of such importance that leave to appeal should, in the public interest, be granted.

Whilst many of the minor powers of the Court may be exercised by a Court constituted by one Judge, in all major matters, e.g., questions relating to the basic wage, standard hours of work, long service leave, applications concerning registered organizations and also appeals from orders or awards made by Conciliation Commissioners, the Court must be constituted by at least three Judges one of whom may be the Chief Judge. In the 1952 Basic Wage and Standard Hours Inquiry, six Judges sat together to hear the matter.

Prior to 1947, there was no division of work as between the Court and Conciliation Commissioners, a dispute being dealt with by either one or other part of the Tribunal, with the exception that questions relating to the basic wage and standard hours could only be dealt with by at least three Judges of the Court sitting together. There was also, at that time, a right of appeal to the Court against a decision of a Conciliation Commissioner. The amending Act of 1947 brought about the division of work between the two parts of the Tribunal, and, at the same time, made decisions of Conciliation Commissioners final. However, a further amending Act passed in 1952 altered the position regarding finality of decisions of Conciliation Commissioners, and provided a right of appeal, in the circumstances set out above, to the Court against any such decision.

§ 2. Rates of Wage and Hours of Labour.

Weekly Rates of Wage, pp. 400 and 404.—The following table shows for each State and Australia the weighted average nominal weekly rates of wage payable, and the index-numbers based thereon, for adult males and for adult females at 31st December, 1951, 30th June, 1952 and 30th September, 1952.

WAGE RATES OF ADULT MALES AND FEMALES.

(WEIGHTED AVERAGE NOMINAL WEEKLY RATES PAYABLE FOR A FULL WEEK'S WORK AND INDEX-NUMBERS OF WAGE RATES.)

Date.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Aust. (a)
ADULT MALES—RATES OF WAGE.							
	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
31st December, 1951	255 0	245 5	240 10	241 8	251 4	247 3	248 7
30th June, 1952 ..	270 5	258 2	262 5	256 6	269 2	261 3	264 3
30th September, 1952	281 8	269 11	263 9	268 7	277 9	268 8	273 11
ADULT MALES—INDEX-NUMBERS.—(*Base : Weighted Average Wage for Australia* (51*s.* 3*d.*), 1911 = 1,000.)							
31st December, 1951	4,975	4,789	4,699	4,715	4,904	4,825	4,850
30th June, 1952 ..	5,277	5,037	5,121	5,005	5,253	5,097	5,156
30th September, 1952	5,496	5,267	5,147	5,241	5,419	5,242	5,345
ADULT FEMALES—RATES OF WAGE.							
	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
31st December, 1951	171 1	172 10	161 7	171 4	163 2	168 7	170 4
30th June, 1952 ..	183 1	184 3	175 11	183 4	175 5	179 10	182 4
30th September, 1952	191 10	193 2	181 10	192 5	182 5	186 8	190 9
ADULT FEMALES—INDEX-NUMBERS.—(*Base : Weighted Average for Australia* (27*s.* 2*d.*), 30*th April*, 1914 = 1,000.)							
31st December, 1951	6,296	6,362	5,948	6,305	6,007	6,204	6,268
30th June, 1952 ..	6,738	6,783	6,474	6,748	6,457	6,618	6,712
30th September, 1952	7,061	7,108	6,691	7,082	6,714	6,872	7,020

(*a*) Weighted average for Australia.

§ 3. Basic Wages in Australia.

Commonwealth Basic Wage Rates, p. 417.—The basic weekly wage rates for adult males for each capital city and the six capitals, operative during 1952 and to February, 1953, were as follows :—

BASIC WEEKLY WAGE RATES (*a*), CAPITAL CITIES, PRESCRIBED BY COMMONWEALTH COURT OF CONCILIATION AND ARBITRATION FOR ADULT MALES.

Date Operative.(*b*)	Sydney.	Melbourne.	Brisbane.	Adelaide.	Perth.	Hobart.	Six Capitals.
	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
1952—							
February	216 0	209 0	199 0	205 0	205 0	208 0	210 0
May	223 0	212 0	207 0	211 0	214 0	214 0	216 0
August	235 0	224 0	213 0	224 0	222 0	222 0	227 0
November	237 0	228 0	216 0	229 0	228 0	230 0	231 0
1953—							
February	238 0	229 0	215 0	225 0	229 0	232 0	231 0

(*a*) Rates include " prosperity loadings " where applicable. (*b*) Generally from the beginning of the first pay period commencing in the month indicated.

State Basic Wage Rates, p. 424.—The table below shows the " basic " weekly wage rates of State industrial tribunals, operative in August and November, 1952.

STATE BASIC WAGE—WEEKLY RATES.

State.	August, 1952.			November, 1952.		
	Date of Operation.	Males.	Females.	Date of Operation.	Males.	Females.
		s. d.	s. d.		s. d.	s. d.
New South Wales—						
Metropolitan and Country, excluding Broken Hill ..	(a)	235 0	176 0	(a)	237 0	177 0
Broken Hill	(a)	243 0	182 0	(a)	246 0	184 6
Victoria(b)	(a)	224 0	168 0	(a)	228 0	171 0
Queensland—						
Southern Division (Eastern District)—including Brisbane(c)	28.7.52	213 0	142 6	3.11.52	216 0	144 0
South Australia	(a)	224 0	168 0	(a)	229 0	171 6
Western Australia—						
Metropolitan area	28.7.52	232 3	151 0	27.10.52	238 6	155 0
South-West Land Division ..	28.7.52	232 5	151 1	27.10.52	239 2	155 0
Goldfields and other areas ..	28.7.52	238 0	154 8	27.10.52	244 2	158 9
Tasmania(b)	(a)	222 0	166 6	(a)	230 0	172 6

(a) Operative from beginning of first pay period commencing in month shown. (b) None declared but rates (Capital City) shown are those of Commonwealth Court which are followed to a large extent. (c) Allowances added for other areas:—Males—Southern Division (Western District), 7s. 4d.; Mackay Division, 5s. 6d.; Northern Division (Eastern District), 10s.; Northern Division (Western District), 17s. 4d.; Females—Half of these allowances.

Average Weekly Total Wages paid and Average Earnings.—The following figures are derived from employment and wages recorded on Pay-roll Tax Returns (which cover approximately 80 per cent. of the total employment for Australia) and from estimates of the unrecorded balance. The figures relate to civilian wages and salaries only, pay and allowances of members of the armed forces being excluded. Quarterly figures, also, are published in the *Quarterly Summary of Australian Statistics* and in the *Monthly Review of Business Statistics*, which contains, in addition, an index of average weekly wage earnings, seasonally adjusted.

AVERAGE WEEKLY TOTAL WAGES PAID AND AVERAGE EARNINGS.

Year.	N.S.W. (a)	Vic.	Q'land.	S. Aust.(b)	W. Aust.	Tas.	Aust.
AVERAGE WEEKLY TOTAL WAGES PAID. (£'000.)							
1945–46	4,966	3,378	1,563	947	689	344	11,887
1946–47	5,838	3,958	1,770	1,150	827	409	13,952
1947–48	6,976	4,719	2,069	1,369	954	492	16,579
1948–49	8,133	5,540	2,503	1,644	1,120	580	19,520
1949–50	9,018	6,370	2,838	1,894	1,315	672	22,107
1950–51	11,385	7,916	3,501	2,389	1,639	817	27,647
1951–52	14,364	9,816	4,319	3,018	2,108	1,059	34,684
AVERAGE WEEKLY EARNINGS PER EMPLOYED MALE UNIT.(c) (£.)							
1945–46	6.57	6.59	5.95	5.89	6.04	5.67	6.37
1946–47	6.81	6.86	6.00	6.19	6.18	5.94	6.59
1947–48	7.73	7.80	6.58	7.02	6.87	6.72	7.44
1948–49	8.73	8.84	7.63	8.03	7.75	7.56	8.44
1949–50	9.50	9.78	8.34	8.83	8.65	8.49	9.26
1950–51	11.46	11.70	9.82	10.58	10.23	9.99	11.00
1951–52	14.24	14.20	11.93	13.13	12.80	12.59	13.65

(a) Includes Australian Capital Territory. (b) Includes Northern Territory. (c) Male units represent total male employment plus a proportion of female employment based on the approximate ratio of female to male earnings. The same ratio has been used in each State, and because the average ratio of female to male earnings may vary between States, precise comparisons between average earnings in different States cannot be made on the basis of the figures above.

E. EMPLOYMENT.

§ 1. Employment.

Wage and Salary Earners in Employment, pp. 429–30.—The following are particulars of wage and salary earners in civilian employment, excluding rural wage earners, females in domestic work in private homes, persons on the paid strength of the Defence Forces and National Service trainees in camp, for the month of June, 1952 :—

WAGE AND SALARY EARNERS IN EMPLOYMENT, JUNE, 1952.

(Excluding Rural Wage Earners, Female Domestics in Private Homes, Persons on Paid Strength of Defence Forces and National Service Trainees in camp.)

('000.)

Particulars.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Aust.(a)
Males	754.4	524.4	258.1	171.5	126.0	61.0	1,908.1
Females	270.5	206.6	83.8	54.9	40.5	19.8	679.4
Persons	1,024.9	731.0	341.9	226.4	166.5	80.8	2,587.5

Particulars.	Governmental.(b)	Private Employers.	Mining and Quarrying.	Factories. (c)	Transport and Communication.	Retail Trade.	Other Commerce and Finance.
Males	577.4	1,330.7	58.8	661.6	299.9	124.8	191.2
Females	115.2	564.2	0.9	199.2	39.5	112.6	72.9
Persons	692.6	1,894.9	59.7	860.8	339.4	237.4	264.1

(a) Includes Australian Capital Territory and Northern Territory. (b) Includes all employees of Governmental Authorities (Commonwealth, State, Local and Semi-Governmental) on services such as railways, tramways, banks, post office, air transport, education, broadcasting, police, public works, factories and munitions establishments, migrant hostels, etc., as well as administrative employees within Australia. (c) Subject to revision.

§ 2. Unemployment.

Unemployment of Members of Trade Unions, pp. 432–3.—The following particulars relate to unemployment of members of trade unions during the year 1951 and the June quarter of 1952, respectively :—Australia : Unions reporting, 374, 373 ; Membership, 860,525, 857,126 ; Unemployed—Number, 5,776, 19,023 ; Percentage, 0.7, 2.2. States : Percentage Unemployed—New South Wales, 0.8, 2.8 ; Victoria, 0.6, 1.6 ; Queensland, 0.4, 1.8 ; South Australia, 0.8, 2.0 ; Western Australia, 0.7, 1.6 ; Tasmania, 0.9, 3.4.

§ 4. Industrial Disputes.

Summary of Disputes (involving Stoppage of Work), p. 440.—The following table shows particulars of industrial disputes in each State during 1951 :—

INDUSTRIAL DISPUTES : SUMMARY, 1951.

State.	Number.	Establishments Involved.	Workpeople Involved.			Working Days Lost.	Estimated Loss in Wages.
			Directly.	Indirectly. (a)	Total.		£
New South Wales..	1,052	5,414	279,823	23,738	303,561	682,418	1,803,947
Victoria	41	220	27,219	..	27,219	42,210	104,038
Queensland(b) ..	191	751	51,685	4,412	56,097	96,307	218,454
South Australia ..	27	188	12,713	21	12,734	34,057	88,286
Western Australia..	10	40	4,179	..	4,179	5,101	12,394
Tasmania(b) ..	21	56	4,644	..	4,644	10,401	23,949
Northern Territory	1	1	48	..	48	60	120
Aust. Cap. Territory	1	6	110	..	110	2,420	4,840
Australia(b)..	1,344	6,676	380,421	28,171	408,592	872,974	2,256,028

(a) Persons thrown out of work at the establishments where the stoppages occurred but not themselves parties to the dispute. (b) Includes disputes uncompleted at end of 1950.

CHAPTER XII.—TRADE.

NOTE.—All figures in the following sections are subject to revision. Values are expressed in £A. f.o.b.

§ 5. Oversea Trade.

Summary of Movements, pp. 475–7.—The following is a summary of the total oversea trade movements of Australia during the year 1951–52 :—Merchandise—Exports, £665,240,000, Imports, £1,049,751,000, Commodity balance, —£384,511,000 ; Bullion and Specie—Exports, £9,768,000, Imports, £3,672,000, Balance, £6,096,000 ; Total balance, —£378,415,000.

§ 6. Direction of Oversea Trade.

Imports according to Country of Origin and Exports according to Country of Destination, pp. 478 and 480.—The following table shows particulars of the values of total imports and total exports of Australia, *including bullion and specie*, according to countries of origin or of destination, for the year 1951–52.

TOTAL OVERSEA TRADE, AUSTRALIA: COUNTRIES OF ORIGIN OR OF DESTINATION, 1951–52.

(£'000.)

Country of Origin or of Destination.	Imports.	Exports.
Australia (Re-imported)	2,180	..
United Kingdom	465,705	208,159
Australian Territories—		
New Guinea	4,332	5,489
Papua	1,327	3,754
Borneo (British)	6,903	904
Canada	23,559	9,177
Ceylon	11,173	10,630
Cyprus	89	2,325
East Africa—Tanganyika Territory	2,786	64
Hong Kong	2,255	3,800
India	47,819	16,911
Ireland, Republic of	353	2,426
Malaya, Federation of	18,633	8,532
New Zealand	7,410	37,321
Pacific Islands—Fiji	802	3,156
Singapore	8,764	11,810
Union of South Africa	4,418	3,528
West Africa—Gold Coast	3,056	402
Other British Countries	11,451	14,958
Total British Countries	623,015	343,346
Arabia—		
Saudi Arabia and Yemen	6,579	737
Bahrein Islands	13,067	289
Austria	6,538	458
Belgium	27,528	24,940
Belgian Dependencies—Belgian Congo	4,168	13
Brazil	7,365	1,258
China	3,082	283
Czechoslovakia	6,513	1,280
Egypt	2,158	8,976
Finland	8,929	705
France	22,390	57,875
Germany, Western Zones	32,718	20,389
Indonesia, Republic of	25,530	3,967
Italy	27,712	37,998
Japan	43,582	48,514
Netherlands	14,975	11,353
Netherlands Dependencies—Netherlands Antilles	3,889	99
Norway	11,650	200
Persia	2,292	439
Poland	857	5,008
Spain	2,857	845
Sweden	27,537	6,086
Switzerland	7,000	4,324
Turkey	115	2,787
United States of America	109,141	77,215
Yugoslavia	573	2,719
Other Foreign Countries	11,663	12,905
Total Foreign Countries	430,408	331,662
Total All Countries	1,053,423	675,008

§ 9. Classified Summary of Australian Oversea Trade.

Imports and Exports in Statistical Classes, pp. 490–3.—The following table shows the values of total imports and total exports in statistical classes for the year 1951–52 :—

TOTAL OVERSEA TRADE, AUSTRALIA : CLASSES, 1951–52.

(£'000.)

Class.	Imports.	Exports.
I. Foodstuffs of Animal Origin	6,724	60,745
II. Foodstuffs of Vegetable Origin, Non-alcoholic Beverages	24,978	149,103
III. Spirituous and Alcoholic Liquors	2,355	1,395
IV. Tobacco, etc.	18,826	344
V. Live Animals	616	774
VI. Animal Substances, not Foodstuffs	4,817	342,162
VII. Vegetable Substances and Fibres; Cork and Manutures; Plastic Moulding Materials and Synthetic Fibres	30,269	1,760
VIII. Manufactured Fibres, Textiles and Apparel—		
(*a*) Yarns and Manufactured Fibres	47,197	1,373
(*b*) Textiles	136,249	1,947
(*c*) Apparel	20,123	657
IX. Oils, Fats and Waxes	87,469	4,283
X. Pigments, Paints and Varnishes	3,953	1,072
XI. Rocks, Minerals and Hydrocarbons	5,650	21,463
XII. Metals, Metal Manufactures and Machinery—		
(*a*) Metals and Metal Manufactures	231,801	42,063
(*b*) Dynamo Electrical Machinery, Appliances and Equipment	34,947	1,764
(*c*) Machines and Machinery	126,163	8,390
XIII. Rubber and Leather and Manufactures thereof—		
(*a*) Rubber and Rubber Manufactures	33,976	454
(*b*) Leather and Leather Manufactures	1,108	1,621
XIV. Wood and Wicker	28,029	2,367
XV. Earthenware, Cement, China, Glass and Stoneware	19,667	1,111
XVI. Paper and Stationery—		
(*a*) Pulp, Paper and Board	60,194	460
(*b*) Paper Manufactures and Stationery	8,564	1,659
XVII. Sporting Materials, Toys, Fancy Goods, Jewellery and Timepieces	9,281	752
XVIII. Optical, Surgical and Scientific Instruments and Appliances and Photographic Goods, n.e.i.	10,416	1,735
XIX. Drugs, Fertilizers and Chemicals	28,999	5,677
XX. Miscellaneous	67,380	10,109
XXI. Gold and Silver; Bronze Specie	3,672	9,768
Total	1,053,423	675,008

The following table shows the total quantities of some of the principal commodities exported from Australia during 1951–52 :—

TOTAL OVERSEA TRADE, AUSTRALIA : PRINCIPAL EXPORTS, 1951–52.

Item.	Unit of Quantity.	Quantity.	Item.	Unit of Quantity.	Quantity.
Butter ..	'000 lb.	22,898	Fruits preserved in		
Cheese ..	,,	42,787	Liquid ..	'000 lb.	110,461
Milk and Cream ..	,,	99,718	Wheat ..	'000 tons(*a*)	1,685
Eggs—			Barley ..	,,	269
In shell ..	'000 doz.	13,832	Oats ..	,,	232
Not in shell ..	'000 lb.	11,016	Flour (Wheaten)	,,	704
Meats preserved by			Sugar (Cane) ..	,,	167
Cold Process—			Sheep and Lamb		
Beef and Veal	,,	95,876	Skins ..	No. '000	12,065
Lamb ..	,,	25,246	Wool—		
Mutton ..	,,	5,907	Greasy ..	'000 lb.	823,963
Pork ..	,,	3,898	Scoured, etc. ..	,,	97,768
Meats preserved in			Silver, Silver-lead,		
Tins, etc. ..	,,	121,864	Lead and Zinc,		
Currants ..	,,	11,208	Ores and Concen-		
Raisins ..	,,	73,178	trates.. ..	'000 tons(*a*)	234
Apples ..	'000 bus.	3,263	Pig lead ..	,,	107
Citrus Fruit ..	,,	432			

(*a*) Ton = 2,240 lb.

§ 13. Australian Index of Export Prices.

Monthly Index (Fixed Weights), p. 502.—The following are the export price index-numbers for the year 1951–52 :—

EXPORT PRICE INDEXES : AUSTRALIA.

SIMPLE AGGREGATIVE INDEX : FIXED WEIGHTS.

INDIVIDUAL COMMODITIES, GROUPS OF COMMODITIES AND ALL GROUPS (COMBINED).

(*Base of each section : Average of three years ended June*, 1939 = 100.)

Period.	Wool.	Wheat.	Butter.	Metals. (*a*)	Meats. (*b*)	Sugar.	Dried Fruits. (*c*)	Tallow.	Hides. (*d*)	Gold.	All Groups.	
											Excluding Gold.	Including Gold.
1951–52—												
July ..	(*e*)717	449	291	842	237	426	303	354	616	176	572	544
August ..	551	452	291	842	237	426	303	354	521	176	490	468
September ..	498	445	291	862	237	426	303	354	541	176	465	445
October ..	686	416	291	869	271	426	303	483	575	176	556	529
November ..	603	416	291	835	271	426	303	483	566	176	512	489
December ..	581	416	291	860	271	426	303	483	561	(*f*)189	503	481
January ..	566	416	291	825	271	501	303	483	531	193	495	474
February ..	520	416	291	827	271	501	303	483	451	196	472	453
March ..	460	416	291	817	273	501	300	483	378	193	442	424
April ..	475	416	291	799	273	501	300	483	398	187	448	430
May ..	543	416	291	711	273	501	300	483	346	184	474	454
June ..	566	416	291	641	273	501	300	483	343	186	480	460
Year 1951–52	564	424	291	811	263	464	302	451	486	184	492	471

(*a*) Non-ferrous—silver, copper, tin, lead, zinc. (*b*) Beef, lamb, mutton, pork. (*c*) Sultanas, exias, currants. (*d*) Cattle hides, calf skins. (*e*) Nominal. (*f*) The price used in the index ince 14th December, 1951 is the price of Australian gold on oversea premium markets.

§ 17. The Australian Balance of Payments.

NOTE.—Further details of the summarized estimates presented here will be found in *The Australian Balance of Payments*, 1947–48 *to* 1951–52 obtainable from the Commonwealth Statistician.

Balance of Payments on Current and Capital Account, pp. 509–11.—The following table shows in summary form revised estimates for 1950–51 and preliminary estimates for 1951–52 :—

AUSTRALIA : BALANCE OF PAYMENTS, SUMMARY.

(£A. million.)

—	1950–51.	1951–52. (Preliminary).
CURRENT ACCOUNT. (Credit items +, Debit items —)		
Exports f.o.b.	+ 975·3	+ 666·7
Imports f.o.b.	— 741·9	— 1,050·4
Trade Balance	+ 233·4	— 383·7
Invisible Credits	+ 86·7	+ 93·3
Invisible Debits	— 225·9	— 285·6
Invisible Balance	— 139·2	— 192·3
Balance on Current Account	+ 94·2	— 576·0
CAPITAL ACCOUNT. (Plus sign (+) indicates net increases in assets or net decreases in liabilities and minus sign (—) indicates net decreases in assets or net increases in liabilities)		
International Reserves	+ 192·9	(*a*) — 464·0
Public Authority Debt Domiciled Overseas	+ 19·4	+ 2·3
Net transactions with International Monetary Fund and International Bank for Reconstruction and Development	— 4·0	— 25·0
Net Investment in Joint Organization (Wool)	— 1·8	+ 0·9
Miscellaneous Official Transactions	+ 1·0	+ 1·6
Undistributed Income accruing to Oversea Companies ..	— 30·0	— 25·0
Private Capital Movements and Balancing items.. ..	— 83·3	— 66·8
Balance on Capital Account	+ 94·2	— 576·0

(*a*) Excludes movements due to adjustments of an accounting nature during 1951–52 which were not due to balance of payments transactions.

Balance of Payments on Current Account—Various Countries, p. 512.—Summarized estimates of Australia's regional balance of payments in 1950–51 and 1951–52 (preliminary) are given in the following table.

AUSTRALIA: BALANCE OF PAYMENTS ON CURRENT ACCOUNT—MONETARY AREAS.

(Minus sign (—) denotes debit; other items are credits.)

(£A. million.)

——	Gold Production.	Sterling Area.		Dollar Area.			Other Non-Sterling.		Total.
		United Kingdom.	Other.	United States of America.	Canada.	Other.	O.E.E.C.	Other.	
1950–51—									
Exports f.o.b.	..	316.6	108.7	148.8	17.2	4.3	252.7	127.0	975.3
Imports f.o.b.	..	−356.7	−127.5	− 61.6	− 17.0	− 0.1	− 99.9	− 79.1	− 741.9
Invisibles (net)	12.9	− 70.9	− 19.9	− 27.6	− 5.1	− 0.1	− 7.3	− 21.2	− 139.2
Balance on Current Account ..	12.9	−111.0	− 38.7	59.6	− 4.9	4.1	145.5	26.7	94.2
		−149.7		58.8			172.2		
1951–52—									
Exports f.o.b.	..	208.4	127.5	77.2	9.2	2.7	165.3	76.4	666.7
Imports f.o.b.	..	−465.6	−148.8	−109.3	− 23.5	− 1.6	−189.2	−112.4	−1050.4
Invisibles (net)	14.0	− 79.5	− 32.2	− 43.8	− 7.3	− 0.8	− 20.3	− 22.4	− 192.3
Balance on Current Account ..	14.0	−336.7	− 53.5	− 75.9	− 21.6	0.3	− 44.2	− 58.4	− 576.0
		−390.2		−97.2			−102.6		

Balance of Payments with the Dollar Area, p. 513.—The following table presents revised estimates, for 1949–50 and 1950–51, and preliminary estimates for 1951–52, of Australia's dollar balance of payments :—

AUSTRALIA: BALANCE OF PAYMENTS WITH THE DOLLAR AREA (UNITED STATES DOLLARS).

(Credit Items +, Debit Items −.)

——	1949–50.	1950–51.	1951–52.
CURRENT ACCOUNT.	United States $ million.	United States $ million.	United States $ million.
Merchandise Trade.			
1. Merchandise exports f.o.b. to United States of America and Canada	+ 137	+ 372	+ 193
2. Merchandise imports f.o.b. from United States of America and Canada	− 173	− 176	− 297
3. Trade balance with United States of America and Canada	− 36	+ 196	− 104
4. Trade balance with other American account countries ..	+ 5	+ 9	+ 2
5. Trade balance with the Dollar Area	− 31	+ 205	− 102

AUSTRALIA : BALANCE OF PAYMENTS WITH THE DOLLAR AREA (UNITED STATES DOLLARS)—*continued.*

	1949–50.	1950–51.	1951–52.
	United States $ million.	United States $ million.	United States $ million.
Other Current Transactions.			
6. Freight on imports	−24.3	−22.1	−63.2
7. Insurance on imports	− 1.9	− 1.7	− 3.6
8. Expenditure by Australian travellers	− 2.6	− 2.8	− 2.8
9. Expenses of Australian companies in North America ..	− 4.3	− 5.0	− 6.7
10. Film remittances	− 3.6	− 3.9	− 6.3
11. Profits and dividends remitted	− 8.2	− 8.8	− 8.8
12. Undistributed income accruing to companies incorporated in dollar area	−13.9	−23.7	−19.2
13. Public authority interest payments	− 9.1	− 8.5	− 8.4
14. Lend-Lease settlement and purchase of United States surpluses	..	..	..
15. Other miscellaneous debits	−41.1	−42.4	− 6.7
16. Miscellaneous credits	+22.2	+18.8	+38.1
17. Invisible balance with the Dollar Area	− 87	− 100	− 88
18. Balance on current account (5+17)	− 118	+ 105	− 190
INVESTMENT ACCOUNT.			
19. Increase in debt of public authorities..	− 11	− 3	− 3
20. Undistributed income (*see* item 12)	+ 14	+ 24	+ 19
21. Identified private capital inflow	+ 14	+ 20	+ 9(*a*)
22. Errors and omissions (mainly capital movements) ..	+ 53	− 75	
23. Balance on Investment Account	+ 70	− 34	+ 25
24. Dollar Surplus or Deficit (18 + 23)	− 48	+ 71	− 165
DOLLAR FINANCING.			
25. Dollar drawings from I.M.F. and I.B.R.D.	+ 20	+ 9	+ 56
26. Gold sales to United Kingdom	+ 30	+ 21	..
27. Estimated dollar drawings from (+) or contributions to (−) Sterling Area Dollar Pool	+ 2	− 97	+ 131
28. Movement in Australian dollar balances (increase −) ..	− 4	− 4	− 22
29. Total	+ 48	− 71	+ 165

(*a*) No estimate is available yet for identified private capital inflow in 1951–52.

CHAPTER XIII.—POPULATION.

§ 3. Growth and Distribution of Population.

Growth of Population, pp. 519–20.—The following table shows the estimated population of each State and Territory as at 31st December, 1951 :—

ESTIMATED POPULATION.

(EXCLUDING FULL-BLOOD ABORIGINALS.)

Population—	N.S.W.	Vic.	Qld.	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
At 31st December, 1951—									
Males ..	1,692,368	1,152,772	623,003	363,191	304,866	158,053	9,507	13,942	4,317,702
Females ..	1,666,392	1,138,582	596,602	366,645	286,736	148,961	6,020	11,094	4,221,032
Persons ..	3,358,760	2,291,354	1,219,605	729,836	591,602	307,014	15.527	25,036	8,538,734

§ 4. Mean Population.

Mean Population, p. 527.—Mean populations for the calendar year ended 31st December, 1951 and for the financial years ended 30th June, 1951 and 30th June, 1952 are as follows :—

MEAN POPULATION.

(EXCLUDING FULL-BLOOD ABORIGINALS.)

Population.	N.S.W.	Vic.	Qld.	S.A.	W.A.	Tas.	N.T.	A.C.T	Aust.
Mean for year ended—									
Dec., 1951	3,318,800	2,269,025	1,207,235	720,144	581,459	292,939	15,992	24,395	8,429,989
June, 1951	3,274,107	2,236,708	1,192,906	711,007	571,349	287,590	15,540	22,096	8,311,303
June, 1952	3,355,988	2,301,542	1,221,104	729,364	591,158	298,567	16,045	25,699	8,539,467

§ 5. Elements of Increase.

Natural Increase, p. 529, Increase by Net Migration, p. 532 and Total Increase, p. 534.—The following table shows particulars of natural increase, increase by net migration and total increase during the year 1951 :—

POPULATION : NATURAL INCREASE, INCREASE BY NET MIGRATION AND TOTAL INCREASE, 1951.

(EXCLUDING FULL-BLOOD ABORIGINALS.)

Particulars.	N.S.W.	Vic.	Q'land.	S. Aust.	W.Aust.	Tas.	Nor. Terr.	Aust. Cap. Terr.	Aust.
NATURAL INCREASE (EXCESS OF BIRTHS OVER DEATHS).									
Persons ..	40,137	27,107	18,547	10,279	9,506	4,790	290	854	111,510
Rate(*a*) ..	12.09	11.95	15.36	14.27	16.35	16.35	18.13	35.01	13.23
INCREASE BY NET MIGRATION.									
Persons ..	40,597	32,991	9,813	7,547	8,425	7,827	105	4,128	111,433
TOTAL INCREASE.									
Persons ..	80,734	60,098	28,360	17,826	17,931	12,617	395	4,982	222,943

(*a*) Excess of births over deaths per 1,000 of mean population.

§ 7. General Characteristics.

Age Distribution, p. 543.—Estimates of the distribution of population in five-yearly age groups as at 30th June, 1951 are as follows :—

POPULATION : AGE DISTRIBUTION, AUSTRALIA, 1951.

(EXCLUDING FULL-BLOOD ABORIGINALS.)

Age Group (Years).	Estimated, 30th June, 1951.			Age Group (Years).	Estimated, 30th June, 1951.		
	Males.	Females.	Persons.		Males.	Females.	Persons.
0– 4	475,861	454,537	930,398	60–64	180,907	189,433	370,340
5– 9	379,024	363,924	742,948	65–69	130,374	143,206	273,580
10–14	309,709	297,985	607,694	70–74	87,022	104,932	191,954
15–19	283,357	270,266	553,623	75 and over ..	89,994	120,592	210,586
20–24	331,423	310,674	642.097				
25–29	361,401	337,584	698,985	Total ..	4,259,756	4,171,634	8,431,390
30–34	326.477	316,510	642,987				
35–39	323,437	310,700	634,137				
40–44	301,415	280,021	581,436	Under 21 ..	1,510,377	1,446,041	2,956,418
45–49	257,456	234,988	492,444	21 and over ..	2,749,379	2,725,593	5,474,972
50–54	228,408	230,369	458,777				
55–59	193.491	205,913	399.404	Total ..	4,259,756	4,171,634	8,431,390

§ 9. Oversea Migration.

Classes of Arrivals and Departures, p. 561.—Arrivals and departures during 1951 were :—Permanent new arrivals, 132,542 ; Australian residents returning from abroad, 36,116 ; temporary visitors arriving, 44.982 ; total arrivals, 213,640 : Australian residents departing permanently, 22,180 ; Australian residents departing temporarily, 34.532 ; temporary visitors departing, 45,495 ; total departures, 102,207.

CHAPTER XIV.—VITAL STATISTICS.

§ 1. Marriages, § 2. Fertility and Reproduction, and § 3. Mortality.

Numbers and Rates, pp. 575-6, 583-4, 597-8 and 604.—The following table shows totals and rates for marriages, births, deaths, and infant deaths for 1951 :—

MARRIAGES, BIRTHS, DEATHS AND INFANT DEATHS, 1951.

Particulars.		N.S.W.	Vic.	Qld.	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Marriages ..	Number	30,341	21,117	10,814	6,646	5,390	2,607	143	240	77,298
	Rate (*a*)	9.14	9.31	8.96	9.23	9.27	8.90	8.94	9.84	9.17
Births ..	Number	72,069	50,553	29.652	17,462	14,794	7,357	407	1,003	193,298
	Rate(*a*)	21.72	22.28	24.56	24.25	25.44	25.11	25.45	41.11	22.93
Deaths ..	Number	31,932	23.446	11,105	7,184	5,288	2,567	117	149	81,788
	Rate(*a*)	9.62	10.33	9.20	9.98	9.09	8.76	7.32	6.11	9.78
Infant Deaths..	Number	1,895	1,143	761	428	425	196	18	12	4,878
	Rate(*b*)	26.29	22.61	25.66	24.51	28.73	26.64	44.23	11.96	25.24

(*a*) Number per 1,000 of mean population. (*b*) Number of deaths under 1 year per 1,000 of live births registered.

CHAPTER XVI.—PRIVATE FINANCE.

A. CURRENCY.

§ 2. Coinage.

Issues of Australian Coins, p. 698.—The net issues of Australian coins to 30th June, 1952 were :—silver, £31,679,000 ; bronze, £2,306,000 ; total, £33,985,000.

§ 3. Notes.

The Australian Note Issue, p. 702.—The average value of notes in circulation for the year 1951–52 was £295,117,000. This amount was distributed in denominations as follows :—10s., £9,454,000 ; £1, £69,399,000 ; £5, £132,432,000 ; £10, £83,131,000 ; £20, £7,000 ; £50, £59,000 ; £100, £63,000 ; and £1,000, £572,000. The amount held by the banks was £37,745,000 and by the public, £257,372,000.

B. BANKING.

§ 1. Cheque-Paying Banks.

Commonwealth Bank, pp. 711–13.—Particulars of the average liabilities and assets of the Central Banking Business and General Banking Division, etc., of the Commonwealth Bank for the year 1951–52 appear below :—

The average liabilities of the Central Banking Business (including Note Issue Department) of the Commonwealth Bank for the year ended June, 1952 amounted to £1,074,938,000. Capital and Reserve Funds amounted to £10,450,000 ; Notes on Issue to £293,639,000 ; Special Accounts of Trading Banks to £468,800,000 ; Other Deposits of Trading Banks to £31,112,000 ; Other Liabilities to £270,937,000.

Particulars of the average assets are as follows :—Gold and Balances held abroad, £470,644,000 ; Australian Coin, £2,164,000 ; Cheques and Bills of Other Banks, £6,321,000 ; Government and Other Securities (including Treasury Bills), £503,089,000 ; Bills Receivable and Remittances in Transit, £85,000 ; and Other Assets, £92,635,000.

The average liabilities in Australia of the General Banking Division and the Rural Credits, Industrial Finance and Mortgage Bank Departments for the year ended June, 1952 were £161,942,000. Of this amount Deposits not Bearing Interest amounted to £98,555,000 ; Deposits bearing interest to £20,092,000 ; Balances due to other Banks to £17,428,000 ; Other Liabilities to £25,867,000.

The average assets in Australia, £179,980,000, included Cash and Cash Balances, £10,754,000 ; Balances with Other Banks, £1,021,000 ; Treasury Bills, £26,452,000 ; Other Australian Public Securities, £13,744,000 ; Other Securities, £212,000 ; Loans, Advances and Bills Discounted, £124,629,000 ; Other Assets, £3,168,000.

Private Trading Banks, p. 713.—Average liabilities in Australia of the Private Trading Banks for the year ended June, 1952 were £1,279,125,000. Interminable Deposits or Deposit Stock amounted to £729,000 ; Deposits not Bearing Interest to £963,524,000 ; Deposits Bearing Interest to £238,217,000 ; Notes in Circulation to £158,000 ; Balances due to Other Banks to £61,527,000 ; Other Liabilities to £14,970,000.

Average Assets in Australia amounted to £1,312,248,000. These comprised Cash and Cash Balances, £60,589,000 ; Special Accounts with Commonwealth Bank £465,991,000 ; Balances with Other Banks, £29,140,000 ; Treasury Bills, £32,402,000 ; Other Australian Public Securities, £68,416,000 ; Other Securities, £1,124,000 ; Loans, Advances and Bills Discounted, £621,435,000 ; All Other Assets, £33,151,000.

Classification of Advances within Australia, Commonwealth Bank and Private Trading Banks, p. 717.—Advances within Australia at the end of June, 1952 dissected by industries were :—Business advances—Agriculture. Dairying and Grazing, £148,356,000 ; Manufacturing, £200,931,000 ; Transport, Storage and Communication, £14,229,000 ; Finance and Property, £84,939,000 ; Commerce, £143.341,000 ; Miscellaneous, £41,109,000 ; Not elsewhere specified, £7,310,000 ; Total Business advances, £640,215,000 ; Advances to Public Authorities, £51,565.000 ; Personal advances, £127,845,000 ; total £819,625.000.

Clearing House Returns, p. 720.—The average weekly bank clearings in each capital city for the year ended June, 1952 were as follows :—Sydney, £92,557,000 ; Melbourne. £86.022,000 ; Brisbane. £17,478,000 ; Adelaide. £17,226.000 ; Perth, £11,425,000 ; Hobart, £2,980,000 ; Total, £227,688,000.

Debits to Customers' Accounts, All Cheque-Paying Banks, p. 720.—The average weekly debits to customers' accounts in each State for the year 1951–52 for all cheque-paying banks (excluding debits to accounts of Australian Governments in capital cities) were as follows :—New South Wales, £156,603,000 ; Victoria, £142,358,000 ; Queensland, £41,516,000 ; South Australia, £30,791,000 ; Western Australia, £21.810,000 ; Tasmania, £8.856,000 ; Australian Capital Territory. £471,000 ; Total, £402,405,900.

§ 2. Savings Banks.

All Savings Banks, p. 723.—The amounts on deposit in the several States at 30th June, 1952 were :—New South Wales, £304,532,000 ; Victoria, £300,832,000 ; Queensland, £102,661,000 ; South Australia, £103.726.000 ; Western Australia, £47,171,000 ; Tasmania, £30,119,000 ; Northern Territory, £1,036,000 ; Australian Capital Territory, £1,821,000 ; Total, £891,898.000. Total excess of deposits over withdrawals during 1951–52 was £40,381,000, and interest added was £14,073,000.

The number of operative accounts in the several States at 30th June, 1952 was :—New South Wales, 2,247,000 ; Victoria, 2,038,000 ; Queensland, 817,000 ; South Australia, 702,000 ; Western Australia, 404,000 ; Tasmania, 262.000 ; Northern Territory, 8,000 ; Australian Capital Territory, 16,000 ; Total, 6,494,000.

D. INSURANCE.

§ 2. Life Assurance.

Life Assurance, pp. 738–44.—The following is a summary of the life assurance business transacted in Australia during 1951, compiled from monthly returns collected from the 21 companies registered under the Life Insurance Act 1945–1950, and excluding the Government Insurance Office of New South Wales and the Queensland State Government Insurance Office which operate only within their respective States. Particulars shown are therefore not entirely comparable with those in Chapter XVI., which are derived from annual returns and include business of the State Government Offices.

Ordinary Department and Industrial Department, respectively :—New Policies Issued in Australia—Number, 278,524, 267,931 ; Sum assured, £214,557,000, £30,885,000 ; Policies Matured or Otherwise Discontinued in Australia—Number, 105,359, 221,224 ; Sum Assured. £54,006,000, £15,827,000. Particulars of Annuities are excluded.

Premium Receipts in Australia in 1951 amounted to £40,993,000 and £12,865,000, Ordinary and Industrial Departments, respectively. Claims, etc., paid amounted to £16.312,000 and £6,076,000, respectively. Particulars of Annuities are included.

CHAPTER XVII.—PUBLIC FINANCE.

A. COMMONWEALTH FINANCE.

Consolidated Revenue Fund, p. 760–774.—The table below shows details of revenue and expenditure for the year 1951–52 :—

COMMONWEALTH CONSOLIDATED REVENUE FUND: REVENUE AND EXPENDITURE, 1951–52.

(£'000.)

Revenue.		Expenditure.	
Item.	Amount.	Item.	Amount.
Taxation—		Defence Services	125,586
Customs	113,936	War and Repatriation Services	105,931
Excise	99,981	Subsidies and Bounties ..	31,341
Sales Tax	95,459	Departmental	(a)168,952
Land Tax	6,199	National Welfare Fund—	
Income Taxes	537,503	Expenditure on Social Services	137,608
Social Services Contribution	7,676	Balance remaining in Fund	34,101
Wool Deduction	5,963	Business Undertakings—	
Pay-roll Tax	37,170	Postmaster-General's Department	64,291
Estate Duty	7,778	Broadcasting Services ..	4,135
Entertainments Tax ..	6,161	Railways	4,025
Other Taxes	16,185		
Total	934,011	Total	72,451
Business Undertakings—		Territories	9,746
Postmaster-General's Department	59,371	Capital Works and Services—	
Broadcasting Services ..	2,805	Defence Services ..	45,113
Railways	2,779	Business Undertakings ..	31,707
		Other	78,913
Total	64,955	Total	155,733
Territories	1,558	Payments to or for States ..	160,947
Other Revenue	16,304	Primary Production—Self Balancing Items ..	14,432
Grand Total ..	1,016,828	Grand Total ..	1,016,828

(a) Includes surplus of £98,500,000 appropriated to National Debt Sinking Fund.

C. COMMONWEALTH AND STATE FINANCE.

Revenue and Expenditure, p. 818.—The following table shows particulars of Commonwealth and State revenue and expenditure during the year 1951–52.

COMMONWEALTH AND STATE REVENUE AND EXPENDITURE, 1951–52.

(£'000.)

Government of—	Consolidated Revenue Fund. Revenue.	Consolidated Revenue Fund. Expenditure.	Consolidated Revenue Fund. Surplus (+) or Deficit (−)	Loan Fund—Net Expenditure on Works and Services.
New South Wales	167,095	166,997	+ 98	63,433
Victoria	81,661	84,065	− 2,406	51,573
Queensland	55,753	55,708	+ 45	22,070
South Australia	(a) 37,588	37,499	+ 89	27,795
Western Australia	(a) 33,955	34,547	− 592	17,758
Tasmania	(a) 10,469	10,871	− 402	15,008
Six States	386,521	389,689	− 3,168	197,637
Commonwealth	1,016,828	1,016,828	..	31,662
Grand Total—Unadjusted	1,403,349	1,406,517	− 3,168	229,299
Adjusted	1,260,100	1,263,300	− 3,200	229,299

(a) The revenue for the States of South Australia, Western Australia and Tasmania includes the whole of the special grants from the Commonwealth for 1951–52 (including the part of the special grant which related to the difference between the assessed grant for 1949–50 and the special grant received in 1949–50, viz. :—South Australia, £308,000 ; Western Australia, £88,000 ; and Tasmania, £126,000).

D. COMMONWEALTH AND STATE PUBLIC DEBT.

§ 3. Commonwealth and State Public Debt Outstanding.

Public Debt and Annual Interest Payable, pp. 822–3.—The following table shows details of the public debt of the Commonwealth and States and the annual interest payable thereon at 30th June, 1952.

COMMONWEALTH AND STATE PUBLIC DEBT AND ANNUAL INTEREST PAYABLE AT 30th JUNE, 1952.

Particulars.	Maturing in— Australia. £A'000.	Maturing in— London. £Stg.'000.	Maturing in— New York. £'000.	Total. £'000.
DEBT.				
Commonwealth—				
War (1914–18)	148,561	7,534	..	156,095
War (1939–45)	1,479,140	5,775	..	1,484,915
Works and other Purposes	149,236	50,434	28,139	227,809
Total	1,776,937	63,743	28,139	1,868,819
States	1,081,589	290,095	23,992	1,395,676
Grand Total	2,858,526	353,838	52,131	3,264,495
ANNUAL INTEREST PAYABLE.				
Commonwealth	46,337	2,134	1,219	49,690
States	31,609	9,133	889	41,631
Grand Total	77,946	11,267	2,108	91,321

§ 4. Commonwealth Loan Raisings.

Loans Raised, pp. 834–5.—Particulars of loans raised by the Commonwealth between 1st July, 1951 and 30th June, 1952 are given in the following table.

COMMONWEALTH LOANS RAISED, 1951–52.

Month of Raising.	Where Raised.	Amount Invited.	Amount Subscribed.	Rate of Interest.	Year of Maturity.	Purpose.
		£'000.	£'000.	%		
August, 1951 ..	Australia	40,000	8,911 23,589	2 3¾	1954 1962–65	Advances to States for Housing, £3,840,000 State purposes, £28,660,000
November, 1951 ..	Australia	40,000	7,871 32,442	2 3¾	1954 1962–65	Conversion and redemption loan, £26,767,000 Advances to States for Housing, £1,470,000 State purposes, £12,076,000
March, 1952 ..	Australia	75,000	39,020 23,210	2 3¾	1955 1962–65	Conversion and redemption loan, £44,467,000 Advances to States for Housing, £1,901,000 State purposes, £15,862,000
June, 1952 ..	Australia	160,000	160,000	2	1955	War (1939–45) and Repatriation Services, £7,135,000 Advances to States for Housing, £16,367,000 State purposes, £136,498,000

NOTE.—During 1951–52 $53,380,000 were drawn against the loan made available by the International Bank for Reconstruction and Development. All loans in 1951–52 were issued at par.

E. TAXES ON INCOME.

General, p. 840.—The major revisions in Income Tax and Social Services Contribution legislation included in the 1952–53 Budget proposals are set out below.

Taxes on Individuals, p. 840.—For 1952–53 income year an aged person will be exempt from Income Tax and Social Services Contribution if his net income does not exceed £254 or, if he or she contributes to the maintenance of a spouse, £507.

Concessional Deductions, p. 841.—A concessional deduction in respect of education expenses incurred to a maximum of £50 for each student child was introduced for income derived during the year 1952–53.

Rates of Income Tax and Social Services Contribution on Individuals, p. 843.—In the 1952–53 taxation proposals the additional tax and contribution of 10 per cent imposed on 1951–52 income was removed. The tax payable on 1952–53 income is therefore at the same rates as that payable on 1950–51 income.

Company Income Taxes, p. 846.—For 1952–53 the rate of ordinary Income Tax and Social Services Contribution payable by companies on the first £5,000 of taxable income was reduced by 24d. in £1 and the provision requiring an advance payment of Income Tax and Social Services Contribution, introduced in 1951–52, was removed. The rates of tax payable by companies in 1952–53 (on 1951–52 income) are as follows :—

(*a*) Companies (other than life assurance companies)—(i) On the first £5,000 of taxable income—60d. per £1 ; (ii) On the remainder of taxable income—84d. per £1.

(*b*) Life Assurance Companies.—Taxable income of mutual life assurance companies and mutual income of other life assurance companies—(i) On first £5,000 of taxable income—48d. per £1 ; (ii) On remainder of taxable income—72d. per £1 ; (iii) On taxable income other than mutual income the rates as for other companies apply.

(*c*) In addition, a special levy (payable by companies other than private, co-operative or mutual life assurance companies) of 24d. per £1 on taxable income. On the undistributed income of private companies a flat rate of 10s. in the £1 was imposed in lieu of the graduated rates of the shareholders.

CHAPTER XVIII.—MINERAL INDUSTRY.

§ 1. The Mineral Wealth of Australia.

Quantity and Value of Production, pp. 850-1.—In the table hereunder particulars are given of the quantity and value of production in Australia of the principal minerals during the years 1950 and 1951. It should be noted that, because of revised methods adopted in the collection and presentation of mineral statistics, the data shown below for the years 1950 and 1951 are not strictly comparable with those published for previous years:—

MINERAL PRODUCTION: QUANTITIES AND VALUES, AUSTRALIA.

METALLIC MINERALS.

Year.	Principal Contents of Metallic Minerals Produced.								Total Value of Metallic Minerals.
	Copper.	Gold.	Iron.	Lead.	Silver.	Tin.	Zinc.	Sulphur. (a)	
	Tons.	Fine oz.	Tons.	Tons.	'000 fine oz.	Tons.	Tons.	Tons.	£'000.
1950	17,481	869,537	1,417,608	225,367	11,105,544	1,854	198,125	179,243	56,566
1951(b) ..	18,009	895,536	1,459,179	211,717	10,393,735	1,556	189,763	182,915	75,143

NON-METALLIC AND FUEL MINERALS.

Year.	Quantities Produced.						Total Value of Non-Metallic and Fuel Minerals. (d)
	Coal.		Gypsum.	Limestone. (c)	Mica.	Salt.	
	Black.	Brown.					
	'000 tons.	'000 tons.	Tons.	Tons.	lb.	Tons.	£'000.
1950	16,543	7,327	329,721	2,617,041	118,953	272,700	32,984
1951(b)	17,608	7,836	371,447	2,524,186	133,548	300,000	44,048

(a) Includes sulphur content of spent oxide roasted. (b) Subject to revision. (c) Excludes limestone used as a construction material. (d) As recorded.

The total value of all minerals produced was £80,550,000 in 1950, and £119,191,000 in 1951.

CHAPTER XIX.—PASTORAL PRODUCTION.

Live-stock, Meat and Wool Produced.—The following table shows, for each State, the numbers of live-stock at 31st March, 1952, and the amounts of meat and wool produced during 1950–51 and 1951–52:—

LIVE-STOCK, MEAT AND WOOL PRODUCED.

Period.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	N.Terr.	A.C.T.	Australia.
HORSES ('000.), p. 904.									
1952 ..	311	169	289	63	53	19	(b) 32	1	937
CATTLE ('000.), p. 910.									
1952 ..	3,621	2,215	6,434	437	852	266	(b) 1,058	10	14,893
SHEEP ('000.), p. 915.									
1952 ..	53,676	21,537	16,163	11,470	12,188	2,338	(b) 31	243	117,646

LIVE-STOCK, MEAT AND WOOL PRODUCED—*continued.*

Period.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	N. Terr.	A.C.T.	Australia.
PIGS ('000.), p. 1036.									
1952 ..	293	214	316	65	86	47	1	..	1,022
BEEF, INCLUDING VEAL ('000 TONS BONE-IN WEIGHT), p. 912.									
1950–51 ..	193	137	232	36	34	14	4	2	652
1951–52(*a*)	185	137	179	32	33	14	3	2	585
MUTTON AND LAMB ('000 TONS BONE-IN WEIGHT), p. 917.									
1950–51 ..	92	103	14	34	21	9	..	1	274
1951–52(*a*)	92	107	14	31	23	9	..	1	277
TOTAL MEAT (INCLUDING PIGMEATS) IN TERMS OF FRESH ('000 TONS BONE-IN WEIGHT).									
1950–51 ..	312	258	270	77	62	25	4	3	1,011
1951–52(*a*)	303	263	213	69	63	26	4	3	944
WOOL (AS IN THE GREASE) PRODUCED ('000 lb.), p. 920.									
Season—									
1950–51	492,130	212,894	146,690	114,138	107,341	17,250	235	2,266	1,092,944
1951–52 *a*	437,837	213,712	132,793	125,162	120,401	20,513	251	1,765	*c*1,052,434

(*a*) Subject to revision. (*b*) For year ended previous December. (*c*) Estimated.

CHAPTER XX.—AGRICULTURAL PRODUCTION.

§ 3. Distribution, Production and Value of Crops.

Principal Crops, pp. 936–9.—The following table shows the area, production and average yield per acre of wheat in each State for 1950–51 and 1951–52 :—

WHEAT FOR GRAIN : AREA, PRODUCTION AND AVERAGE YIELD.

Season.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	A.C.T.	Aust.
AREA ('000 ACRES.)								
1950–51	3,329	2,735	559	1,848	3,185	5	2	11,663
1951–52(*a*)	2,753	2,464	454	1,613	3,095	4	1	10,384
PRODUCTION ('000 BUSHELS).								
1950–51	43,273	51,236	8,785	30,936	49,900	95	19	184,244
1951–52(*a*)	39,689	45,995	6,632	27,301	40,000	94	14	159,725
AVERAGE YIELD PER ACRE (BUSHELS).								
1950–51	13.00	18.73	15.72	16.74	15.67	17.86	10.10	15.80
1951–52(*a*)	14.42	18.67	14.59	16.92	12.93	26.10	13.97	15.38

(*a*) Subject to revision.

The area, production and average yield per acre of other principal crops in Australia during 1950–51 and 1951–52 are set out hereunder. Statistics for the latter year are subject to revision.

Area ('000 acres) : Oats, 1,757, 2,365 ; Maize, 169, 170 ; Hay, 1,377, 1,549 ; Sugar-cane, 397, 403 ; Total Crops, 19,917, 19,802.

Production ('000) : Oats, 25,128 bush., 34,506 bush. ; Maize, 4,729 bush., 4,022 bush. ; Hay, 2,063 tons, 2,345 tons ; Sugar-cane crushed, 7,052 tons, 5,327 tons ; Cane sugar, 921 tons, 745 tons.

Average Yield per Acre : Oats, 14.30 bush., 14.59 bush. , Maize, 27.93 bush., 23.66 bush. ; Hay, 1.50 tons, 1.51 tons ; Sugar-cane, 25.94 tons, 18.91 tons ; Cane Sugar, 3.39 tons, 2.65 tons. (Sugar-cane and Cane sugar yields are per acre of productive crop).

CHAPTER XXI.—FARMYARD, DAIRY AND BEE PRODUCTS.

Principal Farmyard, Dairy and Bee Products.—Particulars of the total production of these products in each State during 1950–51 and 1951–52 are shown below :—

PRODUCTION OF PRINCIPAL FARMYARD, DAIRY AND BEE PRODUCTS.

Season.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	A.C.T.	Aust.
TOTAL WHOLE MILK PRODUCED ('000 GALS.), p. 1028.								
1950–51	298,159	445,671	278,111	83,545	52,407	41,136	687	1,199,716
1951–52(*a*)	240,115	453,658	179,575	87,766	49,721	45,275	720	1,056,830
BUTTER(*b*) (TONS), pp. 1029–1030.								
1950–51	36,130	59,046	47,911	7,769	7,000	6,073	5	163,934
1951–52(*a*)	25,240	60,814	28,297	8,160	6,724	6,517	5	135,757
CHEESE(*b*) (TONS), pp. 1030–1.								
1950–51	2,960	22,578	8,678	8,932	751	411	..	44,310
1951–52(*a*)	1,995	22,086	4,700	10,629	644	398	..	40,452
CONDENSED, CONCENTRATED AND POWDERED MILK, ETC. (TONS), p. 1031.								
1950–51	22,390	64,600	(*c*)	(*c*)	(*c*)	(*c*)	..	*d* 108,128
1951–52(*a*)	18,477	72,271	(*c*)	(*c*)	(*c*)	(*c*)	..	*d* 107,695
PORK (TONS, BONE-IN WEIGHT), p. 1037.								
1950–51	9,307	7,596	11,751	2,774	2,116	1,499	150	(*e*) 35,257
1951–52(*a*)	10,534	8,600	8,701	2,603	2,502	1,952	194	(*e*) 35,156
BACON AND HAM (TONS, CURED WEIGHT), p. 1038.								
1950–51	12,629	7,905	8,764	3,042	3,558	946	..	36,844
1951–52(*a*)	10,873	7,721	8,617	3,065	3,561	745	..	34,582
SHELL EGGS : PRODUCTION (*f*) RECORDED BY EGG BOARDS ('000 DOZ.), p. 1042.								
1950–51	50,465	25,573	10,858	11,663	7,437	1,297	..	107,293
1951–52	50,271	23,492	8,426	10,741	8,077	1,027	..	102,034
HONEY ('000 lb.), p. 1048.								
1950–51	9,994	8,088	1,925	5,803	1,314	315	..	27,439
1951–52(*a*)	6,814	5,208	706	4,191	3,480	254	..	20,653

(*a*) **Subject to revision.** (*b*) **Includes an estimate of farm production.** (*c*) Not available for publication. (*d*) Includes States marked (*c*). (*e*) Includes Northern Territory, 64 tons in 1950–51 and 70 tons in 1951–52. (*f*) Receivals from consignors and sales by producer agents.

CHAPTER XXIV.—MANUFACTURING INDUSTRY.

Summary.—The table following gives a summary of the operations in manufacturing industries during 1950–51 :—

FACTORIES : SUMMARY, 1950–51.

Particulars.		N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Aust.
1. Factories	No.	17,129	13,504	4,776	3,141	3,111	1,486	43,147
2. Hands employed(*a*) ..	,,	406,965	316,792	94,579	83,169	43,761	23,827	969,093
3. Salaries and wages paid(*b*)	£'000	211,339	163,207	42,837	43,079	19,658	11,737	491,857
4. Value of power, fuel, light, etc. used ..	£'000	35,381	17,371	6,295	7,267	3,759	1,609	71,682
5. ,, materials used	£'000	522,422	382,002	134,457	117,547	46,452	32,401	1,235,281
6. ,, production (*c*) ..	£'000	366,109	275,660	75,460	67,542	34,220	24,614	843,605
7. ,, output of factories	£'000	923,912	675,033	216,212	192,356	84,431	58,624	2,150,568
8. ,, land and buildings	£'000	130,468	101,326	23,958	23,303	13,380	10,971	303,406
9. ,, plant and machinery	£'000	136,492	107,261	34,235	26,759	14,713	19,577	339,037

(*a*) Average over whole year ; includes working proprietors. (*b*) Excludes amounts drawn by working proprietors. (*c*) Value of production equals figures in line 7 *less* totals of figures in lines 4 and 5.

Value of Production in Classes of Industry, p. 1112.—The following table shows, for the year 1950–51, the value of production in Australia for the various classes of factories :—

FACTORIES : VALUE OF PRODUCTION, AUSTRALIA, 1950–51.

(£.)

Class of Industry.	Value of Production.
I. Treatment of Non-metalliferous Mine and Quarry Products	17,325,010
II. Bricks, Pottery, Glass, etc. ..	16,666,705
III. Chemicals, Dyes, Explosives, Paints, Oils and Grease ..	52,703,009
IV. Industrial Metals, Machines, Implements and Conveyances	326,993,082
V. Precious Metals, Jewellery and Plate	4,978,181
VI. Textiles and Textile Goods ..	54,608,477
VII. Skins and Leather ..	14,720,850
VIII. Clothing	71,757,176
IX. Food, Drink and Tobacco ..	118,321,813
X. Woodworking and Basketware	44,880,844
XI. Furniture, Bedding, etc. ..	17,136,578
XII. Paper, Stationery, Printing, Bookbinding, etc. ..	54,725,162
XIII. Rubber	13,064,986
XIV. Musical Instruments ..	1,260,005
XV. Miscellaneous Products ..	15,514,130
XVI. Heat, Light and Power ..	18,948,800
Total	843,604,808

Principal Factory Products, pp. 1119–22.—The following table shows the production during 1950–51 and 1951–52 of a selection of the principal commodities manufactured in Australia :—

QUANTITY OF PRINCIPAL ARTICLES PRODUCED IN FACTORIES(*a*) : AUSTRALIA.

Item.	Unit of Quantity.	1950–51.	1951–52.
Acid, Sulphuric (100%)	'000 tons	640	652
Asbestos Cement Building Sheets ..	Mill. sq. yds.	21.2	23.3
Beer	Mill. gal.	171	*b* 185
Biscuits	Mill. lb.	130.1	150.4
Blankets	'000 pr.	973	652
Boots, Shoes and Sandals	Mill. pr.	18.6	18.0
Bricks, Clay ..	Mill.	687	683
Cement, Portland ..	'000 tons	1,235	1,260
Cloth, Woollen ..	Mill. sq. yds.	37.2	29.5
Confectionery—			
Chocolate	Mill. lb.	70.1	62.1
Other	,,	73.4	76.2
Electricity	'000 Mill. kWh.	10.5	11.3
Enamels and Synthetic Finishes	'000 gal.	1,889	2,125
Engines, Internal Combustion—			
Petrol, Marine (*c*) ..	'000	2.3	2.1
Other(*d*) ..	,,	31.0	30.8
Fibrous Plaster Sheets	Mill. sq. yds.	15.2	15.6
Flour, Wheaten ..	'000 short tons	1,696	1,687
Fruit, Preserved(*e*) ..	Mill. lb.	230.3	247.0
Gas(*f*)	'000 Mill. cub. ft.	37.9	40.2
Ice Cream	Mill. gal.	17.4	16.7
Iron and Steel—			
Pig Iron	'000 tons.	1,313	1,430
Ingot Steel ..	,,	1,444	1,529
Jam	,,	55.9	49.4
Lacquers	'000 gal.	1,158	1,171
Malt	'000 bus.	5,774	6,182
Margarine—			
Table	Mill. lb.	8.3	15.2
Other	,,	49.7	55.9
Meat, Tinned ..	,,	130.0	146.0
Motors, Electric ..	'000	522.1	564.7
Newsprint	'000 tons	31.0	32.6
Paints, Oil	'000 gal.	5,634	5,128
Refrigerators, Domestic	'000	203.2	191.8
Soap	'000 cwt.	1,359	1,288
Socks and Stockings—			
Men's and Boys' ..	'000 doz. pr.	1,517	1,418
Women's and Girls'	,,	1,856	1,830
Children's ..	,,	675	518
Stoves, Cooking—			
Electric—Domestic ..	'000	44.8	51.7
Cookers, Stovettes, etc.	,,	72.3	(*h*)
Gas	,,	55.6	51.9
Solid Fuel ..	,,	74.5	72.7
Sugar, Refined ..	'000 tons	451	499
Sulphate of Ammonia	,,	57.9	63.4
Superphosphate ..	,,	1,548	1,597
Tiles, Roofing—			
Cement	Mill.	50.8	66.1
Terra Cotta ..	,,	47.0	49.5
Timber, Sawn Native ..	Mill. sup. ft.	1,261	1,410
Tobacco, Cigars and Cigarettes ..	Mill. lb.	31.8	32.2
Vegetables, preserved(*g*)	,,	76.4	96.8
Wool, Scoured ..	,,	153	119
Yarn, Woollen and Worsted	,,	46.8	37.0

(*a*) Subject to revision. (*b*) Includes waste beer. (*c*) Other than Diesel type. (*d*) Excludes motor car, motor cycle, truck, tractor and aero engines. (*e*) Includes all types of preserved apples. (*f*) Made in gas-works only. (*g*) Includes preserved tomatoes. (*h*) Not available.

CHAPTER XXV.—ELECTRIC POWER GENERATION AND DISTRIBUTION.

E. STATISTICAL SUMMARY, 1950–51, pp. 1197–1200.

The following tables present summaries, for the year 1950–51, relating to the numbers and capacity of central electric generating stations, the amount of electricity generated, the number of consumers, and the values of production and output and the numbers of persons employed in the electric supply industry.

CENTRAL ELECTRIC STATIONS, 1950–51.

State.	Number.	Installed Capacity (kW.).							
		According to Ownership.				According to Source of Energy.			
		Government.	Local Authority.	Other.	Total.	Steam.	Hydro.	Internal Combustion.	Total.
New South Wales	90	399,350	431,874	210,815	1,042,039	945,424	32,655	63,960	1,042,039
Victoria ..	69	576,994	(a)	(a)	642,788	568,200	52,419	22,169	642,788
Queensland ..	45	..	129,204	116,572	245,776	208,274	3,966	33,536	245,776
South Australia ..	34	(a)	33,670	(a)	206,925	195,076	..	11,849	206,925
Western Australia	113	93,590	(a)	(a)	145,721	102,900	..	42,821	145,721
Tasmania ..	3	(a)	..	(a)	194,480	..	194,480	..	194,480
Total ..	(b) 354	1,399,619	663,099	415,011	2,477,729	2,019,874	283,520	174,335	2,477,729

(a) Not available for publication. (b) Government, 46; Local Authority, 161; Other, 147.

ELECTRICITY GENERATION AND CONSUMPTION, 1950–51.

State.	Electricity Generated.	Ultimate Consumers.
	Mil. kWh.	No.
New South Wales	4,251	818,000
Victoria	2,876	588,000
Queensland	1,115	243,000
South Australia	713	171,000
Western Australia	470	112,000
Tasmania	1,078	83,000
Total	10,503	2,015,000

ELECTRICITY SUPPLY INDUSTRY, 1950–51.

State.	Value of Production.(a)	Value of Output.	Persons Employed.
	£	£	No.
New South Wales	7,762,553	18,948,721	4,076
Victoria	3,140,519	8,301,206	2,453
Queensland	1,207,388	4,447,849	1,023
South Australia	964,571	3,349,451	1,290
Western Australia	858,885	2,827,501	1,023
Tasmania	588,646	618,686	125
Total	14,522,562	38,493,414	9,990

(a) Value of production is the value added in the process of generation.

CHAPTER XXVIII.—REPATRIATION.

§ 2. War Pensions and § 3. Service Pensions.

Pension Rates, pp. 1262–3 and 1267.—Under Act No. 58 of 1952, rates of war and service pensions were increased. The amended rates, which operated from 2nd October, 1952, are as follows :—

War Pensions.—The general rate of pension for a totally incapacitated member of the Forces ranges, according to member's rank, from £8 to £9 16s. per fortnight. The wife of such a member receives a pension of £3 11s. and each child under 16 years of age £1 7s. 6d. per fortnight. For those who have been totally blinded as the result of war service and those who are permanently totally incapacitated, the attendant's allowance is £3 10s. per fortnight. For a war-blinded member who is also affected with total loss of speech or total deafness, the attendant's allowance is £7 per fortnight. Amounts payable for specified disabilities range from 15s. to £9 10s. per fortnight in addition to the statutory rate of pension. In certain double amputation cases additional allowances of either £3 10s. or £7 per fortnight are payable. The rates for children of deceased members are :—first child, £2 13s. per fortnight ; other children, £1 17s. per fortnight ; where both parents are dead, £4 16s. per fortnight for each child.

Service Pensions.—The rate of pension for a member is £6 15s. per fortnight and the maximum rate for the wife of a member £3 10s. per fortnight. Where a service pension is payable in addition to a war pension and civil pension, the service pension is reduced by the amount by which the total pension payable exceeds—for an unmarried pensioner, £8 15s. per fortnight ; for husband and wife, where both are service pensioners, £16 per fortnight ; and where the spouse is not a service pensioner, £12 10s. per fortnight.

Number of Pensioners and Expenditure, pp. 1265 and 1269.—The following table shows the number of war and service pensions in force at 30th June, 1952, and expenditure for the year 1951–52 :—

WAR AND SERVICE PENSIONS : NUMBER AND PAYMENTS, 1951–52.

Particulars.	Place of Payment.							Total.
	N.S.W. (a)	Vic.	Q'land.	S. Aust. (b)	W. Aust.	Tas.	Oversea.	
War Pensions—								
Number—								
1914–18 War ..	48,388	48,014	16,127	10,567	12,487	6,762	3,914	146,259
1939–45 ,, ..	137,213	92,252	49,217	42,511	39,584	16,101	1,311	378,189
Total amount paid (c) £'000	11,047	9,184	3.777	3,047	2,714	1.561	515	31,845
Service Pensions—								
Number	5,881	3,786	2,951	1,667	2,136	655	..	17,076
Amount Paid £'000	609	383	325	174	225	62	..	1,778

(a) Includes Australian Capital Territory. (b) Includes Northern Territory. (c) Amounts in respect of each war are not available.

CHAPTER XXIX.—MISCELLANEOUS.

§ 19. New Building.

Summary, pp. 1292–4.—The following table provides a summary of the new building activity in each State and the Australian Capital Territory during the year ended 30th June, 1952 :—

NEW BUILDINGS : SUMMARY, 1951–52.

Particulars.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	A.C.T.	Aust.
New Buildings—Value £'000—								
Commenced	83,460	77.070	27,624	22,606	18,724	11,004	2,559	243,047
Completed	76,028	67,635	25,339	18,203	14,426	10,511	2,723	214,865
Under construction(*a*)	128,293	100,438	18,747	23,813	22,302	13,770	6,208	313,571
New Houses—Number—								
Commenced	24,364	22,728	12,000	8,510	7,730	3,585	312	79,229
Completed	23,273	23,468	11,803	7,711	6,577	3,999	584	77,415
Under construction(*a*)	32,884	25,793	5,140	7,395	6,917	3,143	708	81,980
New Flats—Number—								
Commenced	1,055	432	38	60	200	16	10	1,811
Completed	1,225	416	29	..	215	21	100	2,006
Under construction(*a*)	2,145	917	27	112	167	12	46	3,426
Persons engaged in new building(*a*)	39,779	31,653	17,037	10,371	8,654	5,267	2,229	114,990

(*a*) At 30th June, 1952.

NOTE.—For definitions and other explanatory matter regarding data presented, *see* Chapter XXIX., pp. 1291 and 1293.

The value of new buildings completed during 1951–52 comprised :—Houses, £171,362,000 ; Flats, £4,297,000 ; Shops with Dwellings, £1,735,000 ; Shops without Dwellings, £1,233,000 ; Hotels, Guest Houses, Boarding Houses, etc., £568,000 ; Factories, £9,813,000 ; Other New Buildings, £25,857,000.

The number of new houses completed during 1951–52 comprised :—Brick, brick veneer, concrete and stone, 23,311 ; Wood (weatherboard, etc.), 32,922 ; Fibro cement, 19,825 ; Other, 1,357.

§ 22. Valuation of Australian Production.

Net Value of Production, p. 1301.—The following table shows particulars of the net value of production in each State of the various industry groups during the year 1950–51:—

NET VALUE OF RECORDED PRODUCTION, 1950–51.
(£'000.)

Industry.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Total.
Agriculture(*a*) ..	39,600	49,046	30,994	37,592	29,760	8,635	195,627
Pastoral ..	317,206	158,987	96,375	62,175	61,463	12,582	708,788
Dairying	28,169	29,565	20,239	6,314	2,959	2,106	89,352
Poultry	10,385	9,815	844	2,043	891	636	24,614
Bee-farming ..	298	270	58	156	36	13	831
Total, Rural(*a*) ..	395,658	247,683	148,510	108,280	95,109	23,972	1,019,212
Trapping	2,466	3,193	97	412	250	211	6,629
Forestry	9,472	6,437	5,029	2,656	2,908	2,432	28,934
Fisheries(*b*) ..	1,947	700	812	404	812	411	5,086
Mines and Quarries	39,634	2,969	8,559	4,188	8,751	7,049	71,150
Total, Non-rural ..	53,519	13,299	14,497	7,660	12,721	10,103	111,799
Total, All Primary *a*	449,177	260,982	163,007	115,940	107,830	34,075	1,131,011
Factories	366,169	275,660	75,460	67,542	34,220	24,614	843,665
Total, All Industries(*a*) ..	815,346	536,642	238,467	183,482	142,050	58,689	1,974,676

(*a*) Subject to revision. (*b*) Local value.

§ 24. Retail Trade.

Value of Retail Sales, p. 1306.—(i) *States.* The following table shows the total value of goods sold by retail establishments in each State during the year 1951–52 and the quarters ended 31st March to 30th September, 1952.

TOTAL VALUE OF RETAIL SALES : STATES.
(£ million.)

Period.	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	Total. (a)
1951–52	754.7	540.8	256.1	175.3	141.1	61.8	1,929.8
Quarter ended—							
31st March, 1952	180.7	132.9	61.4	44.0	35.3	15.4	469.7
30th June, 1952	185.3	133.9	62.8	44.3	36.3	15.5	478.1
30th September, 1952	179.5	127.7	62.6	41.0	34.3	14.9	460.0

(*a*) Excludes Australian Capital Territory and Northern Territory, for which the latest available information is in respect of the year ended 30th June, 1949. In that year retail sales in the Australian Capital Territory were £2.4 million and in the Northern Territory, £2.0 million.

(ii) *Commodity Groups.* In the following table the total value of retail sales for the year 1951–52 and the quarters ended 31st March to 30th September, 1952 are classified according to commodity groups.

VALUE OF RETAIL SALES BY COMMODITY GROUPS : AUSTRALIA.(*a*)
(£ million.)

Commodity Group.	Year ended—	Quarter ended—		
	30th June, 1952.	31st March, 1952.	30th June, 1952.	30th September, 1952.
Groceries	229.7	57.2	60.9	61.9
Butcher's Meat	113.2	28.7	29.6	30.1
Other Food	188.5	48.7	47.5	48.7
Total Foodstuffs	531.4	134.6	138.0	140.7
Beer, Wine and Spirits	150.8	40.3	37.8	37.9
Clothing, Drapery, Piecegoods and Footwear	342.7	75.8	89.8	78.0
Hardware	128.0	30.8	31.2	30.2
Electrical Goods	66.1	15.3	13.9	13.9
Furniture	72.3	16.4	16.6	16.4
Motor Vehicles, Parts, Petrol, etc. ..	357.5	89.0	83.3	75.8
Other Goods(*b*)	281.0	67.5	67.5	67.1
Total(*a*)	1,929.8	469.7	478.1	460.0

(*a*) Excludes Australian Capital Territory and Northern Territory. (*b*) Includes tobacco, cigarettes, etc., newspapers, books and stationery, chemist's goods, etc.

GENERAL INDEX.*

NOTE.—This index is followed by an index of maps, graphs and diagrams, also a list of special articles, etc., in previous issues of the Official Year Book. Area, population, etc., of particular localities are indexed under the locality concerned. Where the subject matter extends continuously over more than one page the first page only is indexed. *Where more than one reference to a subject is given, the chief reference, wherever it has been possible to determine it, is indicated by italic type. Two references to a subject so indicated signify major, and approximately equal, importance.*

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25. **S. R. CARVER, Acting Commonwealth Statistician.**